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# The Assessment of Children with Attachment Disorder: The Randolph Attachment Disorder Questionnaire, the Behavioral and Emotional Rating Scale, and the Biopsychosocial Attachment Types Framework

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**THE ASSESSMENT OF CHILDREN WITH ATTACHMENT DISORDER:  
THE RANDOLPH ATTACHMENT DISORDER QUESTIONNAIRE,  
THE BEHAVIORAL AND EMOTIONAL RATING SCALE, AND  
THE BIOPSYCHOSOCIAL ATTACHMENT TYPES FRAMEWORK**

**by**

**ALICE MYRTH OGILVIE**

**A dissertation submitted in partial fulfillment of the  
requirements for the degree of**

**DOCTOR OF PHILOSOPHY  
in  
SOCIAL WORK AND SOCIAL RESEARCH**

**Portland State University  
©1999**

## **DISSERTATION APPROVAL**

The abstract and dissertation of Alice Myrth Ogilvie for the Doctor of Philosophy in Social Work and Social Research were presented October 26, 1999, and accepted by the dissertation committee and the doctoral program.

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## **ABSTRACT**

**An abstract of the dissertation of Alice Myrth Ogilvie for the Doctor of Philosophy in Social Work and Social Research presented October 26, 1999.**

**Title: The Assessment of Children With Attachment Disorder: The Randolph Attachment Disorder Questionnaire, The Behavioral And Emotional Rating Scale, And The Biopsychosocial Attachment Types Framework**

**Children with attachment disorder (AD) have an ongoing risk of mental health challenges and an exacerbated resistance to traditional treatments (Dozier, Stovall, & Albus, 1999). The inability to trust and inadequate relationship skills present a substantial challenge for supervising adults in families, child welfare, juvenile justice, public schools, and other community settings (Solomon & George, 1999a).**

**This study examined the assessment of AD in children between ages 6 and 18 utilizing two standardized instruments, the Randolph Attachment Disorder Questionnaire (RADQ; Randolph, 1997) and the Behavioral and Emotional Rating Scale (BERS; Epstein & Sharma, 1998). A new framework developed by the author, Biopsychosocial Attachment Types (BAT), for conceptualizing childhood attachment concerns, was explored as a foundation for assessment and as a guide for an incremental corrective experiential approach for altering the child's internal working model of attachment. Biophilia and Attachment theories were explanatory for the BAT**



(Bowlby, 1988; Kellert, 1997).

This dissertation explores three research questions. First, can scores on the BERS be used to predict attachment disorder as measured by the RADQ? Second, can the three categories or six subcategories of the BAT be measured using selected BERS items plus additional author-developed items? Finally, if selected BERS items plus additional author-developed items are found to measure the BAT categories, are the resulting measures reliable and valid? The Foster Family Survey questionnaire completed by 285 foster parents of children 6 to 18 years in foster care for over three months in British Columbia, Canada, provided the data.

Reported results of these analyses included an 18-item BAT measure and a 7-item subscale which predicted RADQ scores using selected items from the BERS with an additional pool of author-developed questions. The regression equation for the RADQ score predicted from the BERS Strength Quotient yielded an adjusted  $r^2$  of .268 while the best-fit model predicted from the BAT yielded a cumulative adjusted  $r^2$  of .515. The resulting BAT measure achieved an alpha score of .91 and factor analysis distinguished the subcategories. All of these results supported the value of continued research in this urgently needed area of investigation (Marvin & Britner, 1999).

## DEDICATION

This dissertation is dedicated to the people and the organizations who made it possible. Children all around us are calling adults to remember that love, when given ***and received***, can sustain us all while we heal or at least support us while we persist.

## **ACKNOWLEDGMENTS**

**This dissertation reflects the assistance and support of many who generously shared their expertise. I extend my appreciation and gratitude to each of them for taking time and investing effort.**

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invaluable; (b) the British Columbia Federation of Foster Parent Associations, under the leadership of Kay Dahl, and all the foster parent participants of the survey; (c) the Attachment Center at Evergreen and Attachment Center Northwest who contributed clinical expertise; (d) Elizabeth Randolph and Michael Epstein for use of their measures; (e) Portland State University's Graduate School of Social Work under the leadership of James H. Ward and Eileen M. Brennan; and (f) the Research and Training Center on Family Support and Children's Mental Health under the leadership of Barbara J. Friesen and Nancy M. Koroloff.

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## **GLOSSARY AND ABBREVIATIONS**

<b>ACE</b>	<b>Attachment Center at Evergreen</b>
<b>AD</b>	<b>Attachment Disorder</b>
<b>ADSCL</b>	<b>Attachment Disorder Symptom Checklist</b>
<b>AMB</b>	<b>children with ambivalent attachments</b>
<b>ANX</b>	<b>children with anxious attachments</b>
<b>APA</b>	<b>American Psychiatric Association</b>
<b>AS</b>	<b>Affective Strength--a subscale of the BERS</b>
<b>ATTACH</b>	<b>Association for Treatment and Training in the Attachment of Children</b>
<b>AVD</b>	<b>children with avoidant attachments</b>
<b>BAT</b>	<b>Biopsychosocial Attachment Types--The bat is a treasured medicine of the Aztec, Toltec, Tolucan, and Mayan peoples. The bat is the symbol of rebirth in the journey of the soul.</b>
<b>BAT 18</b>	<b>18 items found to measure the BAT Framework using items from the BERS and author developed pool of items--also known as the BAT experimental measure.</b>
<b>BCFFPA</b>	<b>British Columbia Federation of Foster Parents Associations</b>
<b>BERS</b>	<b>Behavioral and Emotional Rating Scale</b>
<b>CBCL</b>	<b>Child Behavior Checklist</b>
<b>CD</b>	<b>Conduct Disorder</b>
<b>DBD</b>	<b>"behavior disordered children with no history of maltreatment"</b>

<b>DSM</b>	<b>Diagnostic and Statistical Manual</b>
<b>Dumbo's feather</b>	<b>In the story of Dumbo, the baby elephant believed that the feather the mouse gave him was magic and that he could only fly if he had the feather, however it was the magic of believing that made it possible for him to fly.</b>
<b>EBD</b>	<b>emotional and behavioral disorders</b>
<b>EC</b>	<b>Evergreen Consultants In Human Behavior in Evergreen, Colorado</b>
<b>FAE</b>	<b>Fetal Alcohol Effect</b>
<b>First Nations</b>	<b>preferred descriptor for indigenous peoples in British Columbia--also known as Native Americans, Aboriginals, métis, or American Indian</b>
<b>FSAs</b>	<b>postal Forward Sortation Areas--Geographic areas designated for the delivery of mail in Canada (the USA equivalent of the first two numbers of the zip code).</b>
<b>MAPI</b>	<b>Millon Adolescent Personality Inventory</b>
<b>NAB</b>	<b>maltreated children who do not have behavior problem</b>
<b>NAMHC</b>	<b>National Association of Mental Health Centers</b>
<b>NEBD</b>	<b>"children not identified with emotional and behavioral disorders"</b>
<b>NOR</b>	<b>"normal children"</b>
<b>ODD</b>	<b>Oppositional-Defiant Disorder</b>
<b>PIC</b>	<b>Personality Inventory for Children</b>
<b>P-RADQ</b>	<b>predict a value on the RADQ</b>
<b>RAD</b>	<b>Reactive Attachment Disorder</b>
<b>RADQ</b>	<b>Randolph Attachment Disorder Questionnaire</b>

<b>SED</b>	<b>serious emotional disturbance</b>
<b>SEM</b>	<b>standard errors of measurement</b>
<b>SPSS</b>	<b>Statistical Package for the Social Sciences</b>
<b>SQ</b>	<b>BERS Strength Quotient NEBD</b>

**The Assessment of Children with Attachment Disorder:  
The Randolph Attachment Disorder Questionnaire,  
The Behavioral and Emotional Rating Scale, and  
The Biopsychosocial Attachment Types Framework**

**Chapter One: General Nature and Present Status of Knowledge of the  
Problem**

**Definitions and Scope of the Problem Under Study**

Children with attachment disorder (AD) have an ongoing risk of mental health challenges and an exacerbated resistance to traditional treatments (Dozier, Stovall, & Albus, 1999). Their inability to trust and inadequate relationship skills present a substantial challenge for supervising adults in families, child welfare, juvenile justice, public schools, and other community settings (Solomon & George, 1999a).

This study examined the assessment of attachment disorder (AD) in children age 6 and over through two standardized instruments, the Randolph Attachment Disorder Questionnaire (RADQ; Randolph, 1997) and the Behavioral and Emotional Rating Scale (BERS; Epstein & Sharma, 1998), and presents exploratory research. A new framework developed by the author, Biopsychosocial Attachment Types (BAT), for conceptualizing childhood attachment concerns, was explored as a foundation for assessment and as a guide for an incremental corrective experiential

approach for altering the child's internal working model of attachment. The BAT may provide a foundation for assessment and may suggest an incremental corrective experience which can alter the internal working model of a child age 6 and over with AD.

Children with AD have maladaptive and inaccurate mental representations of reality. Their mental representations are informed by their unique cognitive and affective informational experiences. These mental representations, stabilized by age six years (Jacobvitz & Hazen, 1999), fail to elicit care provider responses that these children find comforting, soothing, predictable, and safe. They display sensorimotor inhibited affect, associate feeling with danger, discard affective information in favor of cognitive information, and ultimately fail to organize their behavior effectively (Ainsworth, 1979; Atkinson & Zucker, 1997; Crittenden, 1997; Rieber, Carlton, & Minick, 1987). The internal working model distortions, inability to trust, and inadequate relationship skills present a substantial challenge for parenting adults, increase the risk of future mental health diagnosis, and exacerbate resistance to traditional mental health treatments (Dozier, Stovall, & Albus, 1999).

In this chapter, current definitions, the scope and history of the problem, theoretical foundations, and a review of clinical studies are presented. Attachment disorder is an area of the attachment and bonding



topic rarely studied and not generally well understood by mental health and social service professionals (Minnis, Ramsay, & Campbell, 1996). The use of terms has dynamically evolved and been quite difficult to track. The process of naming the cluster of symptoms clinically identified as attachment disorder has been non-standard. Reactive Attachment Disorder (RAD) as defined by the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (1994) has been the accepted label for a set of childhood diagnostic criteria. A new category describing a more severe condition has been recently developing for possible future Diagnostic and Statistical Manual (DSM) inclusion. The term AD designates a condition found in a population of children who meet the criteria for both RAD and Oppositional-Defiant Disorder (ODD) or Conduct Disorder (CD) (Randolph & Myeroff, 1998). Some of these children meet the requirement of RAD by substituting in-utero unwantedness (David, Dytrych, Matejcek, & Schuller, 1988) in place of the maltreatment requirement for a RAD diagnosis.

Reactive Attachment Disorder (RAD) as defined by the DSM-IV (1994), involves significant disturbance of social relatedness that begins before age 5, manifests in most contexts, cannot be accounted for by a diagnosis of Pervasive Developmental Disorder or developmental delay, and results from inadequate physical care, inadequate emotional care, or multiple primary caregivers (American Psychiatric Association , 1994; Minnis, 1996).

The exact prevalence of RAD is unknown, with estimates ranging from 1% to 2% of all children (Ginsberg, 1995). The usage of this diagnosis is relatively rare and fails to mention disturbed and aggressive behavior. It constitutes the only diagnosis that includes infants and has an etiological requirement (Richters & Volkmar, 1994). Infants have died of non-organic failure to thrive as a result of RAD (Crittenden, 1997; Powell & Bettes, 1992).

Children who have experienced prolonged rage, failed to fully develop trust, viewed people as not trustworthy, and functioned with inadequate conscience development, causing them to abuse and manipulate others, have come more generally to be viewed as Attachment Disordered (AD) (Cline, 1992, 1995; McKelvey, 1995). Children diagnosed with AD over the age of 7 years, when asked by this and other clinicians to predict the future consequences of their disorder, foretold the result of their untreated condition to be eventual incarceration in jails, institutions, or mental hospitals; living or dying on the streets; and, in general, driving everyone who cares for them away and out of their lives with their behavior. Some children with attachment disorder develop dangerous responses and manifest psychopathic thinking, and a few kill their care providers (Byng-Hall, 1991; Cline, 1992; Greenberg, 1999; Magid & McKelvey, 1987).

According to the DSM-IV (1994) RAD is treatable and reversible, yet many families experience multiple treatment failures since effective

**assessment and treatments are not widely known to families, not traditionally accepted by mental health professionals, and delivered without complete empirical testing. Frequently, assessment and interventions are administered in specialized, geographically remote centers, thereby limiting access.**

**Many situations may contribute to the development of attachment disorder. Examples include: (a) a child born prematurely who is placed for an extended period in a neonatal intensive care unit; (b) a child born to a teen mother who is neglectful due to lack of information and needed social supports; (c) a child born to parents who have recently moved to seek employment and lack sufficient resources to obtain adequate food, shelter, and mental health services; (d) a child born to a family severed and isolated by racism or other forms of oppression; (e) a child born to a mother who is seriously depressed and unresponsive to her infant; (f) a child removed from parents who have been incapacitated by drug use; (g) a child whose primary caregiver has been brain-damaged by an auto accident; (h) a child who has been abandoned by birth parents and moved from foster home to foster home prior to adoption; and (i) a child who has moved from relative to relative after parents died of disease (Sroufe, 1990). These examples are not an exhaustive list of possible catalysts. Not every child who has experienced such circumstances develops AD (Chestang, 1980). What makes the difference may be a complex interaction of genetics, parenting, resources**

allocated by the society to the child, minority status, and many other known and unknown factors (Ainsworth, 1991; Belsky, 1999; Simpson, 1999).

Attachment and the quality of the attachment also have a suggested link to future risk of adolescent and adult mental health problems (Ainsworth, Andry, Harlow, Lebovici, Mead, Prugh, & Wootton, 1966; Ainsworth & Bowlby, 1991; Bezirganian, Cohen, & Brook, 1993; Bowlby, 1966, 1982, 1988; Bretherton, 1992; Cassidy & Shaver, 1999; Holmes, 1996; National Association of Mental Health Centers, 1996)

Presently, persistent families seek services from a limited number of geographically remote service providers since few clinician are trained to assess or treat AD in children over age 5. Accessible and accurate AD assessment procedures and AD interventions with proven effectiveness that can be used by social service and mental health professionals working with children in multiple settings are needed in order to reach more children and families who are affected by this disorder. Making the assessment and services more universal, less clinically objectionable, and more transferable between social situations is an important yet challenging task. This can be accomplished by utilizing an expanded, stronger, and more complete theoretical foundation for assessment and treatment, and by formulating more explicit descriptions of interventions and conducting evaluations of these processes (Angold, Costello, Farmer, Burns, & Erkanli, 1999). The use

of a research-based approach may also reduce the longstanding controversy which has slowed the progress of identification and treatment for this age group (Kobak, 1999).

Assessment of children suspected of having attachment disorder has customarily been made by collecting all known family history from parents and other involved professionals, including information on the child's experiences with all care providers, and by doing a behavioral assessment based on the parents' reports. Assessment of attachment disorder is extremely difficult and has lacked a standard protocol. A clinical interview that examines the child's care history, trauma history, and parenting history, along with the collection of behavioral information, has informed the clinical assessment. Failure of the attachment may also be related to a number of co-occurring mental health disorders, as suggested by the many diagnoses the children typically have at the time of entering attachment treatment. Children frequently have been diagnosed with Attention-Deficit/Hyperactivity Disorder (ADHD), Conduct Disorder, Oppositional-Defiant Disorder, Antisocial Personality Disorder, and Post Traumatic Stress Disorder (Magid & McKelvey, 1987; McKelvey, 1995). Assessment and intervention evolves in a recursive process in which a specific set of behaviors typical of one mental health diagnosis may partially resolve and underlying concerns may surface to be addressed. For example, the child may present at assessment with

behaviors consistent with hyperactivity; clinical intervention to balance the child's attention to internal and external states may reduce the hyperactivity to non-clinical levels. The assessment process may then be repeated to identify the next set of behavioral concerns to be addressed in light of the child's changes.

Assessment tools are emerging (Randolph, 1997, 1999) that assist identification of children with AD and evaluate their progress. Early studies report that these tools are helpful in the assessment process (Goodwin, 1996; Myeroff, 1997). Assessment recurs periodically throughout treatment and is combined with interventions addressing nurturing to enhance self-esteem, structuring to strengthen child-careprovider relationships (Clarke & Dawson, 1998), and other, more directive modalities.

### **Exploration of Theory and a New Framework**

In this study theory expansion is suggested by the author linking Attachment Theory, the theory of Biophilia, Affect Theory, and other developmental theories to form a foundation for a new, more accessible attachment assessment and intervention framework compatible with multiple professional and paraprofessional services. Assessment and intervention of insecure attachment may be based in part upon the Biopsychosocial Attachment Types (BAT) framework proposed in this study. The concept of the BAT framework, an incremental corrective process of successful





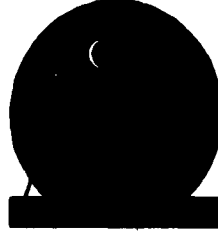

interaction with a sequence of observable objects progressively closer to secure attachment with people, may make assessment and services more available in the home communities of children and families. A premise of this dissertation is that families form the foundation for treatment and serve as case managers for their children (Friesen & Poertner, 1995). Positive processes of assessment and of corrective intervention are more conducive to healing and improving the children's ability to attach or bond than dwelling on deficiencies.

#### The Biopsychosocial Attachment Types (BAT) Framework

The Biopsychosocial Attachment Types framework is illustrated in Figure 1. This progression is divided into categories of inanimate objects (soft objects), non-human living things (plants and animals), and humans (younger children, peers, and adults), and progresses from an absence of attachment to any object at one extreme to secure attachment at the other. Consider attachment as a continuum from unattached to insecurely attached to securely attached, augmented by attachment behavior pattern categories with a behaviorally observable set of progressive attachment objects that help to identify the degree of challenge and stress the child faces in the formation of a secure attachment. This path, described by BAT, is identified as an assessment and intervention framework when normal attachment fails to form by age 5.

Figure 1

# Biopsychosocial Attachment Types: BAT Framework

Category One		Category Two		Category Three		
SOFT OBJECT Inanimate Objects		NON-HUMAN LIVING THINGS Plants                      Animals		HUMANS Younger Children                      Peers                      Adults		
						



**Attachment theory provides eight behaviors which make it possible to observe attachment: (a) proximity seeking--keeping the parent close enough for protection and getting closer when threatened; (b) secure base effect--feelings of confidence leading to exploration and play when the parent is present; (c) separation protest--active protest if access to the parent is threatened; (d) elicitation by threat--anxious, stressful situations cause movement toward and closeness to the parent for comfort; (e) specificity of the attachment figure--the specific attachment figure will reduce stress and comfort the child, and lead to protest if access is denied; (f) inaccessibility to conscious control--feelings of attachment and protest of loss persist even when access is hopeless and another reliable figure is available; (g) persistence--attachment is long-lasting, does not require reinforcement, and loss of the figure is an irreparable wound; and (h) insensitivity to stressful experiences with the attachment figure--anger and shame may be linked to attachment feelings because of abuse or neglect without negating the attachment (Rutter, 1981; Weiss, 1982, 1991; West, Sheldon, & Reiffer, 1987). Attachment theory takes the ethological view that an attachment supports survival and the requirement for an attachment is biologically programmed. When attachment to a parent does not form, attachment to something else is substituted. Something comforts loneliness, reduces fear or sadness in the child, and becomes the focus of protest when access is**

threatened. By keeping these childhood attachment characteristics in mind, one can review each of the progressive steps along the BAT framework to consider current theoretical support for the three categories of BAT being hypothesized as incremental substitutes for human attachment.

**BAT category one: Inanimate objects.**

The first BAT category includes inanimate objects to which a child may become attached. First, normal object attachment behavior in childhood is usually exhibited prior to age 18 months and extends quite normally through 5 years of age.

Although a secure attachment to mother does not automatically lead to an object attachment, (Jones, Ridge, & Bates, 1990; Parker, cited in Brody, 1980; Van Ijzendoorn, Goossens, Tavecchio, Vergeer, & Hubbard, 1983) it may be a necessary (though not sufficient) condition for its development (Lehman, Denham, Moser, & Reeves, 1992)....These objects will allow children to provide for their own comfort when necessary, and ... will be given up as children find alternate ways of coping at a developmentally appropriate level.

(Lehman, Arnold, Reeves, & Steier, 1996, p. 435)

Children with object attachments tend to use the object as a representation or substitute for the real attachment figure. A transitional object or object attachment is reported in the literature as a part of normal child development.

Second, the literature appeared to describe children who lacked an attachment to a human as substituting an object for the attachment figure. Reasons exist to consider inanimate object attachments as reliable from a child's point of view because the child views the object as "totally accepting," "always there," totally under the child's control, "allow[ing] use of his or her own resources for comfort," and providing a way to avoid alienating parents by displacing feelings from parents to objects (Lehman et al., 1996, p. 432).

As previously stated, the characteristics of childhood attachment can be observed relative to the child's relationship with the selected inanimate object: something comforts loneliness, reduces fear or sadness in the child, and becomes the focus of protest when access is threatened. Some children may be insecurely attached to the point of "manipulating objects with little interpersonal meaning or withdrawing into solitary fantasy" (Hughes, 1997, p. 25). Using the BAT framework one can hypothesize that inanimate objects present the least threat to the insecurely attached child. The preferred object exists as a link to an attachment figure in normal development from ages 18 months through 5 years. For a child with an insecure attachment over age 6, the object provides for the highest level of reliability for a potential attachment object under the child's personal control. When inanimate object attachment is absent and a secure attachment to a primary care provider is absent in developmental stages over age 6 years, BAT-based assessment

guides an intervention that seeks to establish an attachment response to an age appropriate object (e.g. a teen male's ever-present baseball cap may become like Dumbo's feather). Once the child safely cares for and relates to an object (at the time of assessment or after intervention), a therapeutic move is made to the second level skills of BAT, attachment to plants and animals.

**BAT category two: Living things.**

In the second BAT category the attachment object is (or the inanimate object becomes replaced with) a living, non-human transitional object that poses less threat to the child than humans. Plants and then animals form the next two steps along the continuum, providing a tolerable increase in anxiety to the insecurely attached child and representing incrementally reduced levels of the child's perception of necessary personal control. The care of and safety with non-human living things comes another step closer to the stress tolerance required for insecurely attached children to risk forming the developmentally desirable human attachment capable of comforting them and nurturing their optimal human development.

Edward O. Wilson began an exploration into the theoretical basis for the theory of Biophilia, which has added reasoned support for the second BAT category (Wilson, 1993). Wilson (1993) defined Biophilia as "the innately emotional affiliation of human beings to other living organisms.

**Innate means hereditary and hence part of ultimate human nature" (p. 31).**

**Kellert and Wilson (1993) reviewed research literature supporting the biophilia hypothesis and the ways in which non-human living things support and improve human cognitive, emotional, esthetic, social, mental, and communication development, and perhaps most importantly "the role of nature in human emotional bonding and physical healing" (Kellert & Wilson, 1993, p. 22). Katcher and Wilkins (1993) reviewed results of their own and other United States and European research studies that supported a psychological association with safety, comfort, tranquility, sense of absent danger, positive social responses, increased social responses, positive emotion, lower blood pressure, and lower pulse rate resulting from human interaction with non-human living things. Even children in residential treatment and children with Autism, Conduct Disorder, ADHD, Chronic Organic Brain Damage, Congenital Brain Dysfunction and a wide variety of functional mental disorders, children who may all be at high risk for insecure or less secure attachments, showed positive effects from contacts with plants and animals (Caduto & Bruchac, 1998; Katcher & Wilkins, 1993; McElroy, 1997; Redefer & Goodman, 1989).**

**The review of clinical data resulted in several conclusions: (a) Animals in human contexts were powerful reinforcers; (b) child interaction with animals yielded positive changes in behavior and increased persistence; (c)**

animals encouraged children to verbally and non-verbally express emotion previously absent; (d) animals increased child interaction with therapists, teachers, and the animals' caretakers; (e) child and animal interaction enhanced resistance to disease, lessened injuries, and increased general well-being since tactile comfort and companionship makes people healthier; and (f) "the response to animals seems to remain intact even when social and emotional responses to other humans are compromised by a variety of structural or functional disorders" (Katcher & Wilkins, 1993, p. 185; see also, Kahn Jr., 1997; Kellert, 1997; Marks, Koepke, & Bradley, 1994; Myers, 1998; Thorndike, 1998). The research results described for child and animal interactions provide a feasible groundwork for the potential of proximity seeking, secure base effect, and separation protest to develop in these relationships: something comforts loneliness, reduces fear or sadness in the child and becomes the focus of protest when access is threatened.

Considerably more research has been conducted on the interaction between children and animals than has been completed on children and plants (Ecopsychology, 1997, October 15), yet it is quite possible that the skills developed in caring for plants are transferable to the care and interaction with animals. Kellert (1997) lists four adaptive benefits of bonding to the natural world supported by scientific research: (a) emotional sustenance and security; (b) sociability and affiliation; (c) self-esteem and

self-respect; and (d) physical healing and mental restoration.

Biophilia supports the potential positive results of a non-human transitional bond for insecurely attached children. In addition, "research on animal intelligence offers increasing evidence of physical and intellectual similarities between animals and humans" (Opotow, 1993, p. 82). Scientists have studied a number of children believed to be raised by animals such as wolves, bears, and sheep; the fact that these children survived may indicate that as they attached to the animal care provider, physical, psychological, and cognitive development resulted (Candland, 1993). Kellert (1997) summarizes it best:

Strong affection and attachment prevail for certain animals, plants, and landscapes. This attitude toward nature focuses above all on the opportunities for emotional bonding and companionship—a connection so intense it sometimes engenders feelings of love. The orbit of human fellowship is extended to incorporate other creatures and landscapes into the intimacy of the human experience. (p. 106)

A nine year old boy is prompted to tend a hamster and learns from noticing changes caused by a need for water. As he fills the water bottle the hamster rushes to drink, then perks up again and begins to play. The boy feels satisfaction and relief. He learns that his companion requires water like he does. It is through just such a doorway that intervention based upon the

**BAT framework is aimed at preparing a less securely attached child for the transition to the third and final category, human beings.**

**BAT category three: Human beings.**

**The final BAT category may exist at assessment or as an intervention to build upon the child's capacities to connect with human beings. The three steps within this category include capacity evaluation and building through interaction of the child with (a) children younger than him or herself under close supervision of adults; (b) peers under social skills guidance from adults; and finally (c) the adult careprovider under guidance from a therapist and family members. This category provides corrective parenting experiences through a new parenting approach (Clarke & Dawson, 1998). Developmental milestones missed by the child as a result of barriers to a secure attachment, barriers that existed when the child was younger, are addressed within a context of incrementally planned new experiences.**

**Contact under adult supervision between the child and children who are younger has been reported to encourage progress (Garbarino, 1995). This contact affords opportunities for the child to pause and focus on qualitative change in cognitive thought structure and organization, or to refine a quantitative change in amount frequency or degree that had occurred with minimal or insufficient time or focus for synthesis (Miller, 1993). Benefit observed to both the younger and older child is reported in research**



on grief experienced at the loss of a parent where "the distress of each may be somewhat diminished by interaction with the other (e.g. Heinicke and Westheimer 1965)" (Ainsworth, 1991, p. 46). Ainsworth and Eichberg (1991) also found evidence that responsibility in caring for others was important to successful resolution of mourning a family member's loss. Older children mentoring younger children has long been commonplace in school settings and other learning environments with the belief that "mentoring facilitates the task accomplishment characteristic of early lifestages" (Haensly & Parsons, 1993, p. 202). Strengthened self-esteem may also result from serving as a resource to younger children.

Encouraging peer interaction and appropriate peer social contact becomes a logical next step for many children with an attachment disorder and is part of normal development (Miller, 1993). At this phase the child with an attachment disorder would be encouraged to participate in activities with age-mates which require no dyadic relationships, such as outings with groups of peers under close adult supervision. Later, encouraging friendships becomes important to the process:

Friendship...with acquaintances with whom one has occasional pleasant interactions, relationships with congenial companions with whom one spends quite a lot of time in activities of mutual concern or interest, and close intimate relationships with one or a few particularly

**valued persons whose company one seeks intermittently....Some of these relationships are sufficiently close and enduring to be characterized as affectional bonds, in which the partner is felt to be a uniquely valued person, not interchangeable with anyone else...**

**(Ainsworth, 1991, p. 44)**

**In addition, close friendships sometimes have an attachment component and endure long term (Ainsworth, 1991). Diverging interests or an interest in a more congenial or more accessible friend might normally result in a natural end to a more casual friendship.**

**The final step in category three encourages attachment to an adult careprovider. This represents the secure attachment pattern formed by parent and child ( Ainsworth, 1979, 1991; Ainsworth et al., 1966; Ainsworth & Bowlby, 1991; Ainsworth & Eichberg, 1991; Bowlby, 1966, 1982, 1988; Holmes, 1993). By encouraging the parent to assist the child through each of the categories of the Biopsychosocial Attachment Types framework, the parent slowly and incrementally may desensitize the traumatized child, who can then reach out to build upon an attachment capacity based in ethological theory and to form a secure attachment step by step.**

**By returning to the establishment of basic trust, each child with AD is assessed and supported through corrective experiences designed to afford a new attachment opportunity. Beginning with the basics of his or her own trust**

level assessed on the BAT and working through progressive stages to the final level on the BAT framework, the child moves toward secure attachment. Keep in mind that proximity seeking, secure base effect, separation protest, elicitation by threat, specificity of the attachment figure, inaccessibility to conscious control, persistence, and insensitivity to stressful experiences with the attachment figure distinguish childhood attachment from other bonds (Rutter, 1981; Weiss, 1982, 1991; West et al., 1987). Each child brings skills and strengths gained through working in the previous BAT categories to the present task of human attachment

### **Theory of Emotion and Motivation**

Children with AD have maladaptive and inaccurate mental representations of reality. These mental representations are informed by their unique cognitive and affective informational experiences. The interpretations of these experiences, from which they predict the probable outcomes of their and others' behavior, fail to lead to comfort, soothing, predictability and safety in the care provider's responses (Ainsworth, 1979; Atkinson & Zucker, 1997; Crittenden, 1997; Rieber et al., 1987). The child translates experiences of emotion and cognition into behavior. The results of AD are manifested by children not knowing how to obtain the desired caregiving nor how to achieve behavioral predictability from the caregiver. Children with AD learn to display sensorimotor inhibited affect, associate

feeling with danger, discard affective information in favor of cognitive information, and ultimately fail to organize their behavior effectively around either affect or cognition (Ainsworth, 1979; Crittenden, 1997; Rieber et al., 1987). Emotional development like physical development always includes the person interacting with the surrounding environment. Sroufe (1984) explained:

Security of attachment is the deep-felt knowledge that the caregiver is not strident or over-arousing, and that relatively high levels of tension in the context of the caregiver will not lead to behavioral disorganization....Not only the ministrations but the mere presence of the objectified caregiver is a source of reassurance. (pp. 116-117)

From this explanation of how experiences of affect and cognition may translate into behavior, an understanding of how emotion regulates contact and human relationships can be considered. Especially given that emotion and expressions of affect have been observed in infants as young as two weeks of age and that neonates imitate facial expressions, these behaviors may be of significant importance to human survival and development (Trevarthen, 1984). This does not alter the reality that humans may think logically or illogically depending on the internalized problem solving models they have encountered and their acquired styles (Miller, 1993). Given these problematic emotional reactions and their resulting ineffective behaviors,

children with AD and other mental health disorders require increased amounts of family support and advanced clinical research which targets their specific challenges (Friesen & Poertner, 1995).

### **Clinical Research Literature**

Attachment theory and research are currently moving forward in three main areas: (a) the study of attachment relationships in adulthood (Bartholomew & Horowitz, 1991; Bartholomew & Thompson, 1995; Bradford & Lyddon, 1994; Brennan & Shaver, 1995; Cohn, Silver, Cowan, Cowan, & Pearson, 1992; DeHaas, Bakermans-Kraneburg, & van Ijzendoorn, 1994; Feeney & Noller, 1996; Florian, Mikulincer, & Bucholtz, 1995); (b) developmental psychopathology in families with maltreatment (Penznerro & Lein, 1995; Pilowsky & Kates, 1996), low social support, or depression; and (c) the continued exploration of the psychological, internal, or representational aspects of attachment (Bowlby, 1988; Bretherton, 1991; Jacobvitz & Hazen, 1999; Parkes, Stevenson-Hinde, & Marris, 1991; Solomon & George, 1999b).

Mary Ainsworth led the continued exploration of the psychological, internal, or representational aspects of attachment with the classification of childhood attachment patterns as secure, ambivalent, and avoidant through the use of the laboratory observation of the Strange Situation (Ainsworth, 1991; Ainsworth et al., 1966; Ainsworth & Bowlby, 1991; Bretherton, 1991).

**The Strange Situation examines the child's responses to a sequence of situations where the primary careprovider is either inaccessible or accessible to determine the presence and type of attachment present in children under age 5 years. Mary Main and Goldwyn (1985) later developed a procedure which identified adult attachment patterns which were consistent with the work of Ainsworth: (a) autonomous-secure individuals; (b) preoccupied individuals; and (c) dismissing individuals. "Not only did the Adult Attachment Interview classifications correspond to Ainsworth's secure, ambivalent, and avoidant infant patterns at a conceptual level, they were also empirically correlated with them" (Bretherton, 1991, p. 26). Attachment theory has provided a sound foundation for research and for an understanding of a basic system of behavior "attributable to genetic constitution, cultural influences, and individual experience" (Ainsworth, 1991, p. 34).**

**Attachment disorder research is a small sub-category of the study of developmental psychopathology in families with maltreatment, low social support, or depression (Penzerro & Lein, 1995; Pilowsky & Kates, 1996; Solomon & George, 1999a). Many of the children have been severed from their birth families as a result of maltreatment, insufficient social support, and maternal depression or mental illness combined with paternal absence. Many lose or have limited contact with birth families and enter long-term foster care or are adopted. These children come to live in families with more**

than sufficient social supports, financial resources, and evaluated parental mental health. In spite of abundant resources and love, a significant number of children continue to present with AD (Altshuler & Gleeson, 1999; Penzerro & Lein, 1995; Usher, Randolph, & Gogan, 1999). Very little research has been conducted on these children and even less of it has been published (Goerge, Wulczyn, & Fanshel, 1994).

#### Historical AD Assessment

In the 1970s the Attachment Center at Evergreen (ACE), and Evergreen Consultants in Human Behavior in Evergreen, Colorado, began to deal with very complexly disturbed children who were identified as having AD (McKelvey, 1995). The children that were treated by therapists in these centers were identified as having AD through the use of a clinical interview or assessment protocol that included a list of symptomatic behaviors. This list was called many things over the years such as a symptom checklist, the Attachment Disorder Symptom Checklist (ADSCL), the Attachment Disorder Checklist, and the Child Behavior Questionnaire (McKelvey, 1995; Randolph, 1997).

The first outcome study done based upon the principles utilized to develop the most recent assessment tool, the Randolph Attachment Disorder Questionnaire, was by Goodwin in 1996 in which the Attachment Disorder Symptom Checklist (ADSCL) was utilized to assess AD (Goodwin, 1996).

This doctoral dissertation stressed the problems of the assessment of AD and went on to conduct a descriptive outcome study of Attachment Therapy. The ADSCL is a non-standardized instrument that evolved from clinical practice. While this study lacked a control group and had other complications, it did support the need for a standardized assessment instrument.

In the mid 1990s a doctoral dissertation by Randolph (1997) examined a means of assessing AD which resulted in the RADQ. Through the RADQ children who were maltreated were clinically identified as either having AD or as not having AD. The doctoral dissertation utilized responses of 95 children to the Rorschach Inkblot Test and the Child Behavior Questionnaire to answer a basic research question: "Do attachment disordered children actually have different ways of perceiving and responding to events around them than do conduct disordered children?" (McKelvey, 1995, p. 79). The answer was "yes", and the children's caregivers' responses were used to create the RADQ (McKelvey, 1995).

#### Outcome Studies Using the RADQ

Since the 1997 release of the RADQ for use, two studies have utilized the Randolph Attachment Disorder Questionnaire (RADQ) to assess attachment disorder (Myeroff, 1997; Randolph, 1997; Randolph & Myeroff, 1998). (The initial two part study to develop the instrument will be discussed



later in the description of the RADQ.) Both of these studies are outcome studies of the treatment at the Attachment Center at Evergreen (ACE). Generally Attachment Therapy approaches the Attachment Disorder from an ecosystemic perspective where a treatment team utilizes holistic and integrative approaches that include didactic and psychoeducational components that are developmentally focused. Cultural sensitivity that includes assisting the family to mobilize natural helping networks and to maximize flexibility and adaption provides the foundation for treatment. Treatment from this perspective emanates from therapist leadership, sensitive attunement to the needs of the child, and modeling of attachment behaviors to instruct the parents (McKelvey, 1995).

Since the Goodwin (1996) doctoral dissertation, the RADQ was developed and utilized by "The ACE Long-Term Study" and in the 1997 doctoral dissertation of Robin Myeroff (Myeroff, 1997; Randolph & Myeroff, 1998). The RADQ results are not reported in the summary of the Myeroff dissertation study. The RADQ and the clinical interviews conducted on the children form the foundation for sorting children who have AD from those who do not. Both of these studies took Child Behavior Checklist (CBCL) (Achenbach, 1993) scores and analyzed them to evaluate behavioral changes in children treated at ACE.

In the ACE Long-Term Study, E. M. Randolph (personal

communication, November 10, 1998) utilized the RADQ for assessment and employed simple Analysis of Variance (ANOVAs) to examine differences in outcomes on the CBCL for children in the long-term treatment program at ACE between July of 1995 and July of 1997 (Randolph & Myeroff, 1998). Initial pre-test scores were gathered, then compared to retest scores at discharge or six months of treatment, and also to twelve month follow-up retest scores. The CBCL (Achenbach, 1993) scores were analyzed to determine that most of the improvement occurred in the first six months of treatment and that overall treatment in the program was successful (Randolph & Myeroff, 1998). Twenty-five children were included in this study.

Myeroff (1997) used a quasi-experimental design with a pre-test and a post-test to conduct an effectiveness study which took a prospective look at a special needs adoption population's ACE treatment outcomes. The study utilized a control group consisting of children whom adoptive parents referred for initial screening. Although the control group children had AD, they were not treated at ACE since the families were unable to travel to Colorado for the treatment (no families were denied treatment for this study). The RADQ was used to assess the AD status of each child in the study. While the doctoral dissertation reports on 12 children in the experimental group and 11 children in the control group, no statistics are given on the RADQ scores of these children.

In reviewing written information on all of these studies, lack of clarity exists as to the methods of assessment utilized to determine the status of each child's attachment. Theoretical and clinical support has been given for the value of the RADQ in assessment of attachment disorder, and the ability of the RADQ to differentiate children with confounding conditions from those with AD (McKelvey, 1995; Randolph, 1997; Randolph & Myeroff, 1998).

The studies mentioned above utilized the Child Behavior Checklist (CBCL; Achenbach, 1993) to examine changes in the child's behavior as a result of the attachment therapy intervention. At no time was an indication given that the CBCL was effective in the assessment of Attachment Disorder (Achenbach, 1993). Because the CBCL and the RADQ both have a problem-focused perspective and because no evaluation of the ability of the CBCL to assess for AD existed, the RADQ was selected for the currently proposed dissertation study. Further, the CBCL has a negative and problem focus that cannot provide positive information for treatment planning; the CBCL is lengthy, and while it includes many problem behaviors, it is not focused or normed for the problems of children with AD. The RADQ is the best clinical tool available to evaluate a child between ages 6-18 for AD.

#### The Randolph Attachment Disorder Questionnaire (RADQ)

Distinguishing AD from other possible childhood disorders which reflect the presence of similar behaviors is crucial. Conduct Disorder,

**Oppositional-Defiant Disorder, Attention-Deficit/Hyperactivity Disorder, and Fetal Alcohol Effects (FAE) all include behaviors likely to be seen in a child with AD. The Attachment Disorder Symptom Checklist (ADSCL), as well as other versions of this list of descriptive symptoms observed by therapists specializing in the treatment of attachment problems and attachment disorder, have been commonly utilized for assessment without ever being studied to determine reliability or validity to support their usage. The RADQ was developed to provide an assessment instrument that included specific behavior descriptions and standardized scores.**

**The RADQ is a 30-item questionnaire which takes about 10 minutes to complete and is based upon the clinical behavior checklists used at ACE and by Evergreen Consultants in Human Behavior (EC). Typically the items are completed by the primary long-term female caretaker of the child. School personnel and psychotherapists may also utilize the RADQ for “diagnosing attachment disorder in children between ages 5 and 18 years” (Randolph, 1997, p. 3). The child's score provides information on the severity of attachment disorder and some information on attachment style, which may be anxious (low scores), avoidant, or ambivalent (highest scores); however, the RADQ does not assess other psychiatric disorders. Other methods exist to measure adult attachment and attachment in children under age 5 years.**

**Because the items forming the foundation of the RADQ were**

developed by psychotherapists and school personnel, the face validity, which assesses whether or not the items appear to measure what they were designed to measure, is high. Construct validity for the RADQ, related to the ability to accurately measure the construct under examination, indicates that the total score on the RADQ "distinguishes quite well between behavior disordered children with no history of maltreatment (DBD), maltreated children who do not have behavior problems (NAB), and normal (NOR) children" (Randolph, 1997, p. 10-11). This property of the RADQ which allows identification of a history of maltreatment or no history of maltreatment is important to meeting the etiological requirement for diagnosing a child with RAD based upon the DSM IV (1994).

Construct validity can also be assessed by comparing the relationship of a tool with other inventories that assess a variety of childhood problems. Comparisons were done with the Personality Inventory for Children (PIC) and the Personal Concerns sub-scales of the Millon Adolescent Personality Inventory (MAPI) through correlational studies to examine construct validity. While the RADQ did measure delinquency and hyperactivity in common with the PIC, this was consistent with what would be expected since children with AD often have Attention-Deficit/Hyperactivity Disorder and poor self-control and discipline. None of the caregiver MAPI Common Concern Scale's six sub-scales was significantly correlated with the RADQ. The societal

conformity and impulse control sub-scales of the MAPI Adolescent Report were stated to have a weak correlation with the RADQ. On the MAPI Common Concern Scale with adolescent subjects, only Personal Esteem was significantly correlated with the RADQ (Randolph & Myeroff, 1998). These results were interpreted to support construct validity (Randolph, 1997).

Another aspect of construct validity included examination of children assessed by history and behavior during evaluation as having anxious, avoidant, or ambivalent attachments as defined by Ainsworth and others (Ainsworth & Bell, 1970). The RADQ distinguished the sub-types of attachment disorder well but was strongest in identifying ambivalent attachment (Randolph, 1997). The Randolph study examined 34 children with anxious attachments (ANX), 35 children with avoidant attachments (AVD), and 34 children with ambivalent attachments (AMB) as sub-groups of children with AD. The RADQ results indicated that the children with anxious attachments (ANX) scored from 89-65 and had the lowest mean; (b) children with avoidant attachments (AVD) scored from 89-68; and (c) children with ambivalent attachments (AMB) scored from 108-89 with the highest mean (Randolph, 1997, p. 15). These three groups are distinguished statistically at better than the .001 level (Randolph, 1998). The RADQ did significantly distinguish anxious, avoidant, and ambivalent attachment types when

**ANOVAs were used to compare the mean scores of the three groups.**

**Content validity measured by factor analysis was not reported. This is of concern and weakens the strength of validity claims. A revision of the manual recently published includes the factor analysis and discriminant functions analysis of a current study by E. M. Randolph (personal communication, November 10, 1998). The current manual reported that in the studies to date that used the RADQ, no false positives or false negatives were believed to exist (Randolph, 1997).**

**The reliability of the RADQ was established using test-retest and internal consistency procedures (Randolph, 1997). Thirty parents of normal children and 40 parents of children with attachment disorder completed the RADQ. The first test was followed by a retest after six weeks. Correlation coefficients of .82 for the AD group and .85 for the non-AD group were achieved. A review of internal consistency using the split-half technique yielded a .84 correlation coefficient for the AD group and .81 for the non-AD group (Randolph, 1997). Both of these support RADQ measurement reliability. A copy of the RADQ may be found in The Foster Family Survey in Appendix A.**

**The RADQ is a reasonable measure of AD, and when accompanied by a clinical interview, it may guide the clinician to determine if a child has AD or not. However, problem-focused assessment fails to identify specific**

strength-based elements so that healing can begin as the result of a targeted treatment plan. It may be possible to help more children with AD heal if their strengths were also assessed either in conjunction with the RADQ or through a study of responses on a child behavior inventory that measures strengths. In 1998 just such a strength-based assessment scale became available, the Behavioral and Emotional Rating Scale (BERS; Epstein & Sharma, 1998), and it seemed reasonable to explore this new option and compare it with scores on the RADQ to determine if it may best be given in addition to the RADQ or as a preliminary predictor of a score on the RADQ. The BERS may have potential for use in assessment, treatment planning, and the evaluation of progress in treatment. At present assessment, treatment planning, and evaluation of progress require parents to complete scales that focus on the problems and deficiencies of the child with AD. The child and parents of a child with AD have surely suffered enough, and more efficient approaches may reduce testing burdens on these families while encouraging additional, earlier, and more available assessment and intervention options while emphasizing the child's strengths. Family support is also enhanced by a strengths approach (Friesen & Poertner, 1995).

#### **The Behavioral and Emotional Rating Scale (BERS)**

Because the BERS was only recently released for use, no studies were found in the literature that have used this new scale. There are a



number of studies underway using the BERS (Epstein, personal communication, October 12, 1999), and future literature will provide published results as they are released.

The BERS is a new standardized and norm-referenced scale developed from a strength-based perspective of assessment as opposed to focusing attention on the problems of the child (Epstein & Sharma, 1998). The BERS may be used to develop treatment plans or educational plans, or to evaluate an intervention, a program, or an agency (research or evaluation) (Epstein & Sharma, 1998). A variety of adults in prolonged contact with the child at work or at home may complete the 52 concise items in about 10 minutes. The scale is based upon current information on strengths and resilience in children. The five subscales include: (a) Interpersonal Strengths; (b) Family Involvement; (c) Intrapersonal Strengths; (d) School Functioning; and (e) Affective Strength (Epstein & Sharma, 1998). The BERS is intended for use with children between the ages of 5 and 18 years.

Content validity for the BERS was demonstrated in two ways. First, a systematic rationale for the content and format of the scale was provided. Second, empirical evaluation through item analysis procedures was utilized throughout the development of the scale. Professional literature and knowledgeable professionals assisted in identifying, defining, and selecting the characteristics or constructs to be measured. Items within the Child

**Behavior Checklist (Achenbach, 1993), the Behavior Rating Profile (Brown & Hammill, 1990), and the Behavior Problem Checklist (Quay & Peterson, 1987) were analyzed for format, wording, and content for construct inclusion that enhanced content validity (Epstein & Sharma, 1998).**

**United States professionals from education, social services, child welfare, and mental health were asked to contribute items. A total of 250 professionals were surveyed for behaviors exemplifying child strengths. The items were sorted and grouped and a second survey was conducted. Once the results were processed the empirical selection of items began. The items were pretested and all items were removed that were at extremes, and judged as present or absent, by all respondents rating target children. Next a study of 83 children with serious emotional disturbance (SED) was conducted and analyzed through one-way analysis of variance (ANOVAs) and Pearson chi-square for each item (Epstein & Sharma, 1998). The BERS scores for the SED group were significantly lower on each item than the scores of the non-SED group. The chi-square test took the 4-point Likert-type scale and reduced it to a dichotomy for each item, and items which were not different between the two groups of respondents were removed. Items with insufficient numbers in cells were also removed.**

**Factor analysis was then conducted on the items. Five factors considered meaningful were identified through "a principal components factor**

analysis with a varimax rotation ... with the following criteria: Eigenvalues were set at 1.5, individual item loadings were established at .40, and [a group of] four items was determined to be the minimum number in any factor" (Epstein & Sharma, 1998, p. 39). The five subscales that were formed include interpersonal strengths, family involvement, intrapersonal strengths, school functioning, and affective strength (Epstein & Sharma, 1998). Finally the items were subjected to item analysis and 52 items with statistically significant point biserial correlation coefficients of .3 or more distinguishing between EBD (emotional and behavioral disorders) and non-EBD were used to form the BERS.

Criterion-related validity to date has not included predictive validity but has examined concurrent validity by examining the BERS along with other established measures of similar constructs (Epstein & Sharma, 1998). The BERS total score was correlated with "the *Competence and School Adjustment--Adolescent Version* (Walker & McConnell, 1995) [a positive correlation], a measure of social skills and social competence; the *Self-Perception Profile for Children* (Harter, 1985) [a positive correlation], a measure examining children's global self-esteem as well as domain-specific self-esteem (e.g., athletic competence); and the *Teacher Report Form* (Achenbach, 1991b) [a negative correlation], a measure of emotional-behavioral problems and adaptive functioning" (Epstein & Sharma, 1998, p.

40-41). The results were all in the anticipated direction and lead to the conclusion that the BERS has concurrent criterion-related validity.

Construct validity was supported by the group differentiation finding that the BERS Strength Quotient (overall score) at 70 or below can also be used to determine whether a child is "very likely at risk for being identified as being EBD" (Epstein & Sharma, 1998, p. 22). In addition the subscales have strong correlation coefficients with the Strength Quotient, total score, showing that all five subscales together form the composite score. The factor analysis previously discussed also supports construct validity and the methods utilized in the development of the BERS support item validity.

The reliability of the BERS was examined by content sampling of five subgroups to examine the standard errors of measurement (SEM). The subgroups included males, females, Anglo Europeans, African Americans, and Hispanics. Little or no bias relative to the subgroups was found and reliability was supported (Epstein & Sharma, 1998). The test-retest reliability of the BERS with a two week time lapse of administration of the instrument was examined. The reliability coefficients for the five subscales for a group of 59 students ages 14-19 years were as follows: (a) Interpersonal Strength  $r = .86$ ; (b) Family Involvement  $r = .99$ ; (c) Intrapersonal Strength  $r = .93$ ; (d) School Functioning  $r = .95$ ; and (e) Affective Strength  $r = .85$  (Epstein & Sharma, 1998, p. 34). The overall Strength Quotient was reported at an

alpha of .99 which reflected excellent reliability. The BERS also reported interrater reliability between special education teachers and gave reliability coefficients ranging from .83 to .98. Inter-scorer reliability examined errors in scoring the instrument which yielded a .99 inter-scorer reliability (Epstein & Sharma, 1998). All of these elements support the finding of a high degree of reliability for the BERS. A copy of the BERS may be found in Appendix A.

### Conclusion

The treatment and prognosis of AD depends upon early detection, since treating a child with an intervention that assumes the ability to trust can only allow the AD to continue across more milestones of development and make AD more difficult to reverse or moderate. When AD is present, the prognosis is poorer without therapist-led alternative treatment. Screening for AD with a less stressful and more versatile measure, and with one more frequently used, may result in more early detection. The BERS is a more versatile scale with value in educational planning, treatment planning, and evaluation of programs, plans and agencies. The BERS is strengths focused as opposed to deficit-based. If the BERS can be used to predict a value on the RADQ then one can screen for AD with a similar amount of assessment time and with the added advantage not offered by the RADQ of gaining information helpful to treatment planning in a variety of settings.

## **Chapter Two: Research Questions Overview**

**This dissertation is an exploration of three specific research questions, each of which centers upon the assessment of AD. The first two questions represent the core of the dissertation and the third question represents an additional step along a path to a broader conclusion related to AD. Assessment that is capable of guiding healing, of promoting early intervention, and of increasing appropriate assessment options is central. The development of expanded assessment options also includes an examination of AD and the BAT framework.**

### **Research Question One**

**Can scores on the BERS be used to predict attachment disorder as measured by the RADQ? Two major components necessary to answering this question are being addressed in the dissertation: (a) identification of dimensions underlying the items included in the RADQ and in the subscales of the BERS measuring AD; and (b) determination of a predictive relationship between subscales comprising the BERS and a score on the RADQ for AD.**

**Identification of dimensions of the RADQ indicate that a subset of 12 items on the RADQ have mean scores that are higher in the AD group (Randolph, 1999). Identification of a subset of items in the RADQ specifically related to AD allows an additional comparison between the dimensions of the BERS and RADQ. This process may assist the identification of possible**

**predictive alternatives in the attempt to anticipate the RADQ score by knowing the scores from the BERS.**

**The first question necessitates examination of prediction of AD as measured by the RADQ by knowing scores from the BERS. The RADQ has continuous scores with an established cutoff indicating that a child has clinical AD (a score over 64, mild to severely attachment disordered), or does not have AD (a score of 64 or less, not attachment disordered). Scores also indicate likely attachment problems (a score of 50 to 64). The most recent information on the RADQ confirmed the continuous nature of the scores relative to AD (Randolph, 1999). The continuous total score of the 30 item RADQ represents the first dependent variable. A total raw score on the 12 items most indicative of AD will also be utilized as a second dependent variable. The total Strength Quotient (SQ) on the BERS and the five subscale scores that comprise the SQ represent the independent variables under test.**

### **Research Question Two**

**Can the three categories or six sub-categories of the BAT be measured using a pool of additional items and the selected items from the BERS? An additional pool of items which are representative of the three categories and six sub-categories of the BAT have been identified, collected, and formatted in a style consistent with the BERS items. Next, this dissertation will attempt to accurately assess the BAT categories and sub-**

categories using questions from the BERS plus this additional item pool. It is of interest to collect responses from long-term caregivers in order to do preliminary analysis on the items and to advance and clarify the properties of the constructs and their relationships.

The second focus of the study is a preliminary exploration that begins to examine whether the BAT categories and sub-categories can be accurately measured through the use of items from the BERS and an additional pool of items developed by the investigator and placed on the survey directly following the BERS.

### **Research Question Three**

If the additional pool of items developed and the items from the BERS are found to measure the BAT categories, are the resulting measures reliable and valid? The task here would be to assess the psychometric properties of the measures of the BAT categories including assessment of the convergent validity of the BAT categories and an examination of the determination of the internal consistency of the BAT categories. Convergent validity of BAT categories was determined by testing for significant correlations between the items developed and a priori selected items from the BERS. Second, internal consistency of the BAT total item pool would be assessed through Cronbach's alpha coefficients. If this reaches a satisfactory conclusion, the BAT scale can be compared to scores on the RADQ and to the subgroup of



questions identified as being most predictive of AD by the creator of the RADQ.

Other studies that address these questions do not exist, and current clinical research has ignored the establishment of a consistent means of assessing AD from a strengths perspective. Nor has a method of screening been identified that is appropriate for common usage under a variety of circumstances. Finally, no attempt has been made to consider the ethologically based BAT framework and to determine if any relationship exists between the constructs consistent with AD and the BAT framework. This dissertation will explore all of these concerns of assessment seeking an approach capable of guiding healing from a strengths perspective, of promoting early intervention through increased accessibility, and of increasing appropriate assessment options through development of an additional assessment instrument.

### **Chapter Three: Research Design And Methodology**

**The purpose of this dissertation is three fold: (a) to seek a comprehensive, strength-based method for determining when a child's behavior is consistent with attachment disorder; (b) to explore methods of measuring the categories and sub-categories of the BAT using a pool of additional items developed by the investigator and selected items from the BERS; and (c) to assess the psychometric properties of the measures of the BAT categories. Foster parent reports of children who may have mental, emotional, or behavioral disorders and who have been in their care six months or more and with dates in the past 12 months, meet the minimum criteria for the BERS, which is a few months, and the RADQ, which is at least 3 months. These standards insured the collection of valid data based upon the norms established for both of these instruments. The RADQ will form the point of comparison to examine the potential of assessment of attachment disorder by the BERS. In addition, a pool of questions has been added to the BERS that was utilized along with existing BERS items to examine the BAT categories. A copy of the survey may be found in Appendix A.**

#### **The Survey Design**

**Foster parents were asked through a mailed, cross-sectional survey to provide information on their perceptions of the behavior of a child with emotional, behavioral, or mental health problems who had been in their care**

for six months or more with dates within the past 12 months. This mailed, self-administered questionnaire was also provided to foster parents upon their request at the trainings offered to foster parents through the British Columbia Federation of Foster Parents Associations (BCFFPA). If they had knowledge of more than one child meeting the criteria, they were asked to answer the survey in regard to their foster child with the most problems. Data collection began with the initial mailing on January 28, 1999, and ended on May 6, 1999. The first returns were received in the BCFFPA office on February 5, 1999.

### **The Population and Sample**

The study targeted the population of foster parents in British Columbia (BC), Canada. There are 4400 foster parents in BC and not all of them have provided ongoing care of six months or more within the last 12 months to children ages 6-18 who may have emotional, behavioral, or mental disorders. No list existed to determine who met the study criteria, so a voluntary list of foster parents meeting the criteria of the sample was collected by the BCFFPA.

The sample was drawn from willing, eligible foster parents in British Columbia. Foster parents are professionalized in BC, and they care for children likely to exhibit attachment disorder at a higher rate than a general population. Foster parents are also respected reporters of children's

behaviors. This makes the population attractive for such a study. The British Columbia Federation of Foster Parents Associations, an organization of and for foster parents, assisted in collecting a list of foster parents willing and eligible to participate. The BCFFPA compiled and retained the list of foster parents to maintain the anonymity of participants.

The BCFFPA president sends out a quarterly letter to foster parents that is mailed by the government of BC to all paid and licensed foster parents. The BCFFPA board and president committed to using this letter and personal conversations to recruit foster parents that met the criteria and who were willing participants. BCFFPA recruited a total of 303 participant foster parents for this non-probability convenience sample through the newsletter and training sessions.

Of the 303 participating foster parents 285 submitted questionnaires sufficiently complete for inclusion in the analysis yielding a completion rate of 94%. Due to the recommendations on the RADQ for completion by the female parent, a preference was expressed for completion of the questionnaire by the primary care provider. Twenty nine male and 256 female foster parents reported on 151 male and 134 female children in their care. Data were checked for the age range represented in the sample and for the proportion of male to female children in BC foster care within the age ranges to determine if these numbers differed from the proportions within the

Province. The response rates of male and female children were proportional to their population segments of the Province. The children ranged in age from 6 years to 20 years with a mean of 12.17 years, a median of 12 years, and a mode of 13 years. However, at the time of administration two children appeared outside the range. One of the children had departed care on her birthday at age 18, so the foster parent was reporting on a 17- 18 year old in spite of the fact that the child was now turning 19. The second child was 20 years with a mental handicap that qualified her to remain in foster care in the status of a child and with the developmental level of a child.

A broad range of postal Forward Sortation Areas (FSAs) is represented in the sample including diverse rural and urban locations throughout BC. Of the 144 FSAs in BC the sample includes responses from 102 and of the ten FSA regions representing BC there are responses from each of the ten regions (Canada Post, 1999).

In the sample the 233 children who were identified by race or ethnicity included 123 (53 %) Caucasian; 94 (40 %) First Nations; 8 (3.4 %) Hispanic; 4 (1.7 %) Asian; and 4 (1.7%) African American. Of the remaining 52 (18%) who were not identified by race or ethnicity, 33 (63.5%) were identified by a nationality or national origin and the remaining 20 (36.5%) were declined. Of the 192 foster parents sharing their ethnicity or race, 168 (87.5%) were Caucasian; 19 (10%) First Nations; 1 (0.5%) Hispanic; 3 (1.6%) Asian; and 1

(0.5%) African American. Of the 93 foster parents declining to identify by race or ethnicity, 73 (78.5%) provided a nationality or national origin, and the remaining 20 (21.5%) declined to make a response. It is important to note that many Canadians consider race and ethnicity secondary to being Canadian and also of lesser importance than the nations of the world in which one's ancestors resided. Several Canadian participants considered the question offensive or, at best, in poor taste.

### **Instrumentation**

The Foster Parent Survey includes four parts. The first part contains ten demographic questions on the foster child followed by the BERS (52 questions) and an additional pool of BAT items (23 questions) for a total of 85 items. The majority of these items are written from a strengths-perspective and can be completed in about 15 minutes. Demographic questions gathered information on the child's sex, age at placement, current age, race/ethnicity, mental health status, mental health diagnosis, disability status, length of time in the placement, current placement, and number of known care providers. Examples of the items typical of the BERS include the following: [This child] "Maintains positive family relationships;" [This child] "Demonstrates a sense of humor;" and [This child] "Asks for help" (Epstein & Sharma, 1998). The BERS response format includes the following choices: 3 = very much like the child, 2 = like the child, 1 = not much like the child, and 0 = not at all like the

child.

An additional pool of BAT items (23 questions) was developed by the investigator based upon the theoretical foundation of the BAT framework. Examples of the items typical of the BAT item pool included the following: [This child] "Interacts positively with animals;" [This child] "Safely interacts with plants;" and [This child] "Plays safely when younger children are present." The BAT item response format (consistent with the BERS) includes the following choices: 3 = very much like the child, 2 = like the child, 1 = not much like the child, and 0 = not at all like the child.

The second part of the Foster Parent Survey contained the 30 questions of the RADQ. The time for completion of these items was stated as 10 minutes. The following items are examples of the RADQ: (a) "My child likes to sneak things without permission, even though he/she could have had them if he/she had asked;" (b) "My child lies, often about obvious or ridiculous things, or when it would have been easier to tell the truth;" and (c) "My child is very bossy with other children and adults" (Randolph, 1997). The response format consisted of the following choices: 5 = usually, 4 = often, 3 = sometimes, 2 = occasionally, and 1 = rarely.

The third section contained the Self Administered Inventory of Learning Strengths: SAILS (15 questions) that takes about 5 minutes to complete (Siegel & Lester, 1994). In acknowledgment of cooperative efforts,

training information for the BCFFPA was collected in the survey and a report compiled by the researcher for the BCFFPA on training information and sensory learning styles of foster parents as measured by the Self Administered Inventory of Learning Strengths: SAILS (Siegel & Lester, 1994).

The fourth and final section contained demographic questions about the foster parent (10 questions), three open-ended questions on topics of interest to the BCFFPA, and finally one open-ended ventilation question. The demographic questions on foster parents included foster parent sex, race/ethnicity, age, level of care designation in BC, length of foster parenting, training hours in the last year, current placements in the foster home, BCFFPA region, postal code, and care responsibility level. The level of care designation in BC is assigned to a foster home based upon an assessment of the care qualifications and experience of the foster parents. The care responsibility level is the agreed amount of care and services provided to a specific foster child, and that level translates to the amount of financial support provided for the child's care. This may mean that a foster home designated at level 3 (high level of skill) may provide level 1 services to a child (low rate of support services). Foster parents may believe this is an inefficient use of highly skilled foster parents or possibly that the child's needs have been underestimated to obtain cost savings since many foster parents would provide care the child needs without regard to the



compensation level. The BCFFPA determined the wording of the question for this information.

The total questionnaire, composed of 144 items, was sequenced to reduce order effects; however, in a mailed survey, the rater can complete the survey in any order and can look ahead to see what sections or questions come next. The order of the questions was structured to account for basic responder fatigue by placing the items of greatest interest for this study earlier in the survey. The complexity of the questionnaire was analyzed by utilizing the readability analysis found in Corel WordPerfect version 7 (1996). The results showed readability was low for vocabulary complexity, moderate for sentence complexity, and the reading grade level was 8.3 based upon the Flesch-Kincaid formula (6-10 is considered useful for a general audience) (Corel Corporation Limited, 1996). The level of difficulty did not provide a serious obstacle for the respondents.

The first aim of the study centers upon the RADQ and the BERS. Validity and reliability of the BERS and the RADQ have been reviewed in Chapter One. The reliability coefficients for these instruments met more than minimum reliability standards by having reported alpha levels of .80 or higher. Errors can be found in the rater, scorer, content sampling, or time sampling of an instrument, therefore attention was given to minimizing these sources of error whenever possible.

### **Procedure**

Data collection was carried out through a two-step process designed to maximize the return rate for the survey: (1) recruiting participants through a letter mailed to all foster parents in BC by the foster parent organization, BCFFPA, to establish a list of potential respondents; and (2) distributing a mailed questionnaire to persons on that list. To contain costs, the questionnaires were mailed to the foster parents who agreed to participate and returned in a postage-paid envelope to the BCFFPA provincial office or in a sealed envelope at the training site where the unopened questionnaires were dated and securely locked up for shipment to the researcher. Each envelope was marked to reflect the date of return in the event that a wave analysis to clarify response rates was advisable. Completion required approximately 30 minutes and was pilot-tested with the BCFFPA Board and President. When revisions were complete, a second pilot-test was conducted with another group of five volunteer foster parents before finalization.

Foster parents who participated in the survey were compensated through the provision of five training sessions across BC. Five days of training were provided by the author in locations selected by the BCFFPA. No charge was made for the trainer's time and all other expenses of the trainer were covered by funds dedicated to the study through a grant from The Center for the Study of Mental Health Policy and Services at Portland

State University. This resulted in free training available to those study participants who could avail themselves of the opportunity to attend. Of the 303 participating foster parents, 285 submitted questionnaires sufficiently complete for inclusion in the analysis, and no foster parent participating in the study was denied admission to the training free of charge. Participation was determined by the BCFFPA asking the individual to self-identify as a survey respondent. In cases where two foster parents from one participating household wished to attend, both were admitted even though only one questionnaire per household was accepted. Approximately 450 individuals attended the five training sessions. A portion of those attending were community members such as Ministry workers in child welfare, Ministry supervisors for child welfare, teachers, and others invited to attend for a low fee by the BCFFPA. Fees collected by the BCFFPA from community members were utilized to pay for site costs and basic refreshments for participants in the training.

#### Data Analysis Overview

Results of the questionnaire were entered into the 9.0 version of the Statistical Package for the Social Sciences (SPSS; 1999). The coding was entered in a numeric form except that Postal Codes were entered as an alpha-numeric string. Each variable response was entered along with calculated scores and subscale scores. A code book was developed for

quantitative data, and qualitative data were entered into word processing and compiled in printed form by identification number for analysis at a later date.

### Score Computation

For the RADQ a total score is computed and for the BERS five subscale scores and one overall score (Strength Quotient) are calculated. The BERS raw scores were also converted into standard scores which were entered as variables.

To score the RADQ each item on the questionnaire must be answered. Of the 303 surveys returned there were 285 which met the requirements for valid completion. Once a determination was made that all questions had been completed, the RADQ score was determined by adding the numeric values of each of the 30 items to obtain a raw total. If a respondent marked more than one number, the higher number was considered the response for that question. Once a total was obtained, 30 was subtracted to obtain the final score (Randolph, 1997). Therefore, scores on the RADQ could range from 0 to 120. The foster parent's perception of the child as having AD or not having AD was utilized, using a cutoff score of 65 and above to indicate having AD and a score of 64 or less to represent not having AD.

A score for the RADQ 12 items most related to AD was determined by adding the numeric values of each of the 12 items to obtain a raw total score.

No adjustments were made to the sum of the 12 items. The scores could range from a minimum of 12 to a maximum of 60. All other rules for determining the score were consistent with those applied to the total score.

To score the BERS, raw scores were computed for each subscale. For example, Affective Strength (AS) was scored by adding the responses to questions assigned to this subscale. The AS questions included were 3, 6, 9, 13, 23, 25, and 34 (Epstein & Sharma, 1998). The total of the responses represented the raw score for the AS subscale. Raw scores were then converted to percentile ranks, standard scores, and a BERS Strength Quotient (SQ) Score. The standard scores for each of the subscales had a mean of 10 and a standard deviation of 3.0 using the norming sample of children with and without emotional and behavioral disorders. The sum of the subscale standard scores was obtained and used to compute the BERS SQ that has a mean of 100 and a standard deviation of 15 (Epstein & Sharma, 1998). The standard score BERS SQ was then converted into the corresponding percentile rank (Epstein & Sharma, 1998). To compute the subscale standard scores from the raw scores the child's gender had to be known and the raw score was looked up on the chart provided for this purpose. To convert the sum of the standard scores to the BERS SQ a chart is provided that designates the percentile and final Strength Quotient using the sum of all five of the standard subscale scores (Epstein & Sharma, 1998).

As previously noted, a score of less than 80 indicated that the child was considered "very likely at risk of being identified as being EBD" (Epstein & Sharma, 1998, p. 22). The raw scores, standard subscale scores, sum of standard subscale scores, and the BERS SQ were entered as variables.

### Response Bias

Analysis of the completion rate of the survey begin with the reporting of the number of returns and non-returns. The non-responses can affect the survey estimates and this effect is called response bias. Response bias can be assessed by wave analysis in which responses in each week are compared to see if later respondents answered differently than initial respondents. If the responses between groups are not different in a substantial way, then there would be a strong case for absence of response bias. Analysis between groups for all weeks of data collection revealed no significant differences, and when week one was compared to the final week, the results were not significant for the RADQ score by week of data collection and the Strength Quotient by week of data collection. This indicates a strong case for absence of response bias since later respondents are more likely to resemble non-respondents (Babbie, 1990).

### Examination of Research Questions

Research Question One addressed the relationship between the foster child's score on the RADQ and the BERS as determined by the

responses of the ongoing foster parent and concerned the prediction of the score on the RADQ using the BERS. The scores on the RADQ were treated as a continuum.

Efforts to estimate or predict a value require regression statistics.

Regression was utilized to examine the amounts of shared variance between scores on the RADQ and scores on the five subscales of the BERS. The RADQ sorts into yes (attachment disorder clinical assessment needed) and no (no attachment disorder clinical assessment needed) through the use of a cutoff score. In addition the scores are viewed as a continuum from attachment problems (scores of 50 - 64), AD (scores of 65 - 90), and severe AD (scores of 90+). The BERS sorts into 5 sub-scales with a composite score called the Strength Quotient with cutoff scores for EBD likelihood. Multiple regression can handle a continuum of scores. Multiple regression was utilized to seek a best-fit model utilizing the five subscale scores from the BERS to predict scores of the RADQ. Multiple regression analysis does not allow a dependent variable with an interval of 0 to 1, and the distribution of error is not normal (Norusis, 1994). Linear regression was used to determine the extent to which individual subscale scores and the Strength Quotient predicted scores on the RADQ.

Investigation of the second question utilized steps suggested by DeVellis (1991) for scale development and analysis. The eight steps and the

analysis plan presented in DeVellis (1991) represent a sound method for scale development and guided progress. These steps include the following: (a) determine clearly what to measure, (b) generate an item pool, (c) set up the format of measurement, (d) conduct expert review of the item pool, (e) consider validation items, (f) administer items, (g) evaluate items, and (h) determine scale length (DeVellis, 1991). The BAT framework provided clarity on what was to be measured and has been discussed. The item pool was drawn from items existing in the BERS and additional items patterned after BERS items. The format of the measurement of the additional item pool was consistent with that of the BERS in the hope that items from the BERS and the item pool would match with the three categories and six subcategories. A consistent format also allowed for ease of answering by the respondent. By keeping the BERS format, there was potential for adding on a small number of items which would require minimal time and stress demands on the respondent and would allow BAT assessment and screening for AD. Expert review of the item pool was conducted at Attachment Center Northwest (ACNW) in November of 1998.

Factor analysis was used on the BERS items plus the additional pool of items to assess fit of the items with the underlying concept(s), and to assist in explaining variation among the items. This procedure allowed the set of items to be condensed into a smaller set of variables, and helped to



clarify the substantive concepts or meaning of the factors ( DeVellis, 1991). Item analysis procedures were utilized to identify problematic items through calculation of item-scale correlations and descriptions of inclusion/exclusion of an item on the alpha coefficient (Cronbach, 1951; DeVellis, 1991). This permitted refinement of the scale through decisions made to drop or amend the items for future explorations.

The pursuit of Research Question Three was dependent upon the results of the previous analysis. Factor analysis was utilized to investigate the new pool of items selected for the BAT measure. Regression analysis was then utilized to select a best-fit model for the total RADQ score and for the RADQ 12 items most related to AD from the BAT measure items.

## **Chapter Four: Prediction of the RADQ Scores**

### **Research Question One: Introduction**

**Analyses were performed on data from 285 participant foster parent reports regarding 151 male and 134 female children in their care. The children ranged in age from 6 years to 20 years with a mean of 12.17 years, a median of 12 years, and a mode of 13 years. See Table 1.**

**The mental health status of the children was examined by foster parent report. Of the 285 children, 129 (45.3%) had a formal mental health diagnosis and 156 (54.7%) did not have a formal diagnosis. Foster parents reported any mental health status named by any professionals for all the children regardless of diagnosis. High reports of Fetal Alcohol Syndrome and Fetal Alcohol Effect were noted and may indicate areas of brain damage in an otherwise normal brain. Brain damage of this type has the potential of causing greater than normal variation in test scores yet none of these cases were confirmed so none were removed from the sample. See Table 2.**

**The scores on the RADQ indicated that 104 (36.5%) of the children scored in the AD range. On the BERS 151 (53%) of the children scored below the 80 point cutoff, a score seen in only 9% of a general sample of children and a likely indicator of EBD. A score of 90 to 110 indicated that a child was likely to have sufficient behavioral and emotional strengths or was in the average range. Average range scores were achieved by 60 (21%) of**

**Table 1**  
**Demographic Characteristics of the Children Described by Foster Parents**  
**in The Foster Family Survey**

Variable	Frequency	Percent
Child Gender		
Female	133	47.0
Male	152	53.0
Child Race/Ethnicity		
Caucasian	123	43.2
First Nations (aboriginal)	94	33.0
Hispanic	8	2.8
Asian	4	1.4
Black, African-American	4	1.4
Nationality/Unspecified	52	18.2
Child Age		
6-10 years	102	35.8
11-14 years	103	36.1
15-20 years	80	28.1
Child Mental Health Status		
Yes – a diagnosis was formally provided	129	45.3
No – a diagnosis was not formally provided	156	54.7
Child RADQ Total Score for AD		
AD Range of 65+	104	36.5
Attachment problems range (50-64)	58	20.4
Not AD nor Attachment problems range (below 50)	123	43.1
Child BERS Strength Quotient NEBD		
Above Average Strength	11	3.9
Sufficient Strength	60	21.0
Below Average Strength	214	75.1
Average Placements Per Child		
Exact placements-average per child/total children	4.28/95	33.3
Estimated placements-average per child/total children	6.23/165	57.9
Unknown number of placements/total children	?/25	8.8

Note: N = 285

**Table 2**  
**Mental Health Status of the Children as Described by Foster Parents in**  
**The Foster Family Survey**

Variable	Frequency	Percent
Adjustment Disorder	21	7.4
Anxiety Disorder	35	12.3
Attachment Disorder	88	30.9
Attention-Deficit/Hyperactivity Disorder	96	33.7
Autistic Disorder	7	2.5
Avoidant Disorder	17	6.0
Bipolar Disorder	8	2.8
Childhood Depression	40	14.0
Disintegrative Disorder	1	0.4
Conduct Disorder	70	24.6
Eating Disorder	20	7.0
Emotional Disorder (SED/EBD)	22	7.7
Fetal Alcohol Effect (ARND/ARBD)	66	23.2
Fetal Alcohol Syndrome	57	20.0
Learning Disability	100	35.1
Multiple Personality Disorder	7	2.5
Oppositional Defiant Disorder	45	15.8
Personality Disorder	20	7.0
Post Traumatic Stress Disorder	24	8.4
Pervasive Developmental Disorder	6	2.1
Schizophrenia	6	2.1
Tourette's Disorder	6	2.1
Other mental health disorders	54	18.9

*Note:* N = 285. Foster parents were instructed to check as many conditions as applied.

the children in the study sample. Scores above 111 showed above-average strengths, and only 11 (3.9%) of the children in this sample achieved scores in this range. Scores of less than 90 were considered below average, and 214 (75.1%) of the children in this sample scored below 90 on the BERS Strength Quotient. See Table 2.

Characteristics of the foster parents were examined. The majority of the participants were Caucasian females between 30 and 60 years of age with a moderate to high level of evaluated skill as a primary careprovider. See Table 3.

### **Univariate Analyses**

To begin the analysis each major variable was examined to determine if the involved variables were normal in distribution. A skewed distribution may have necessitated data transformation and alternative statistics. For this analysis, information on the RADQ score, the BERS Strength Quotient, and each of the 5 subscales of the BERS was examined. Results can be found in Table 4 and Figures 2 and 3.

Skewness, to examine the symmetry of the sample distribution, and kurtosis, to measure its peakedness, were calculated for each of the primary variables. On measures of skewness and kurtosis normality could be rejected if the ratio of each statistic to its standard error was less than -2 or greater than +2, and because of a sensitivity to anomalies in the distributions,

**Table 3**  
**Demographic Characteristics of the Participants in The Foster Family Survey**

Variable	Frequency	Percent
Respondent Gender		
Female	256	89.8
Male	29	10.2
Respondent Race/Ethnicity		
Caucasian	168	59.0
First Nations (aboriginal)	19	6.6
Hispanic	1	0.4
Black, African-American	3	1.0
Nationality/Unspecified	94	32.9
Respondent Age		
20 – 30 years	10	3.5
31 – 40 years	54	18.9
41 – 50 years	133	46.7
51 – 60 years	79	27.7
61 – 70 years	7	2.5
Unspecified	2	0.7
Respondent "Level of Care" as a foster parent		
High level of care	126	44.2
Moderate level of care	140	49.1
Low level of care	8	2.8
Unknown	11	3.9
Respondent portion of care responsibility		
Primary	253	88.8
Joint	12	4.2
Non-primary/Unspecified	20	7.0
Respondent years of foster care experience		
0-5 years	133	46.7
6-10 years	67	23.5
11-15 years	37	13.0
16-20 years	29	10.2
21-35 years	17	5.9
Unspecified	2	.7

**Note:** N = 285

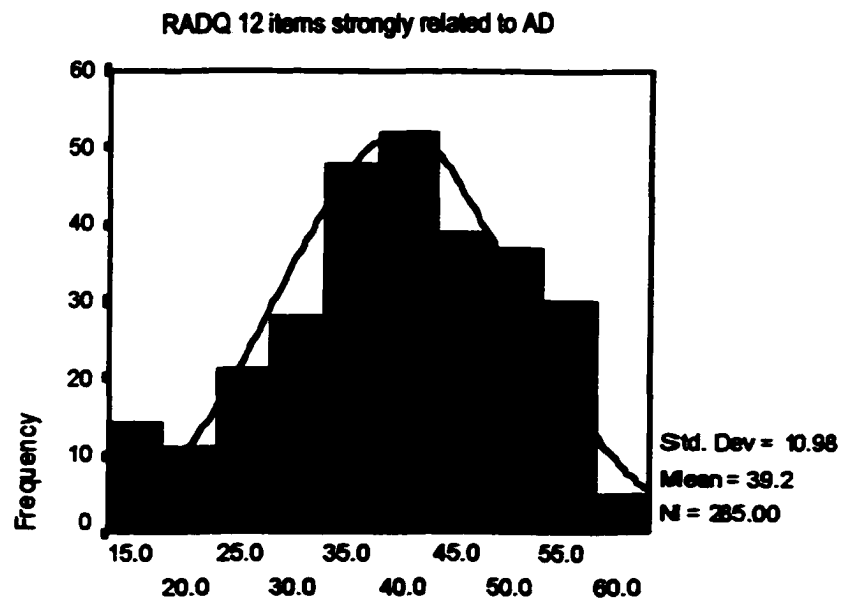
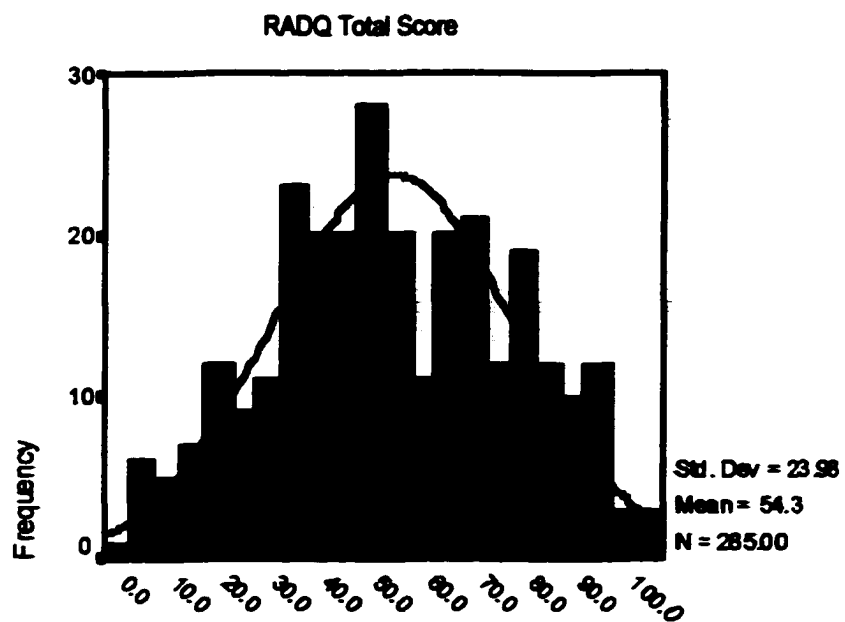
**Table 4**

**Statistics of Randolph Attachment Disorder (RADQ) Questionnaire and Behavioral and Emotional Rating Scale (BERS)**

Variable	Mean	Median	Mode	Standard Deviation	Variance	Skewness	Kurtosis	Range	Minimum Maximum
<b>RADQ</b>									
RADQ Total Score	54.30	53	65	23.98	575.12	-.035	-.714	104	2 - 106
12 RADQ like AD	39.15	40	41	10.98	120.49	-.328	-.558	47	13 - 60
<b>BERS</b>									
Strength Quotient	79.45	78	74	16.00	255.99	.301	.223	90	43 - 133
Interpersonal Strength	6.48	6	6	2.53	6.39	.429	.511	13	1 - 14
Family Involvement	7.67	7	6	2.78	7.74	.311	.263	17	1 - 18
Intrapersonal Strength	7.00	7	6	2.79	7.79	.192	-.176	14	1 - 15
School Functioning	6.28	6	7	2.78	7.74	.293	-.152	13	1 - 14
Affective Strength	7.64	8	6	3.46	11.96	.271	-.389	16	1 - 17

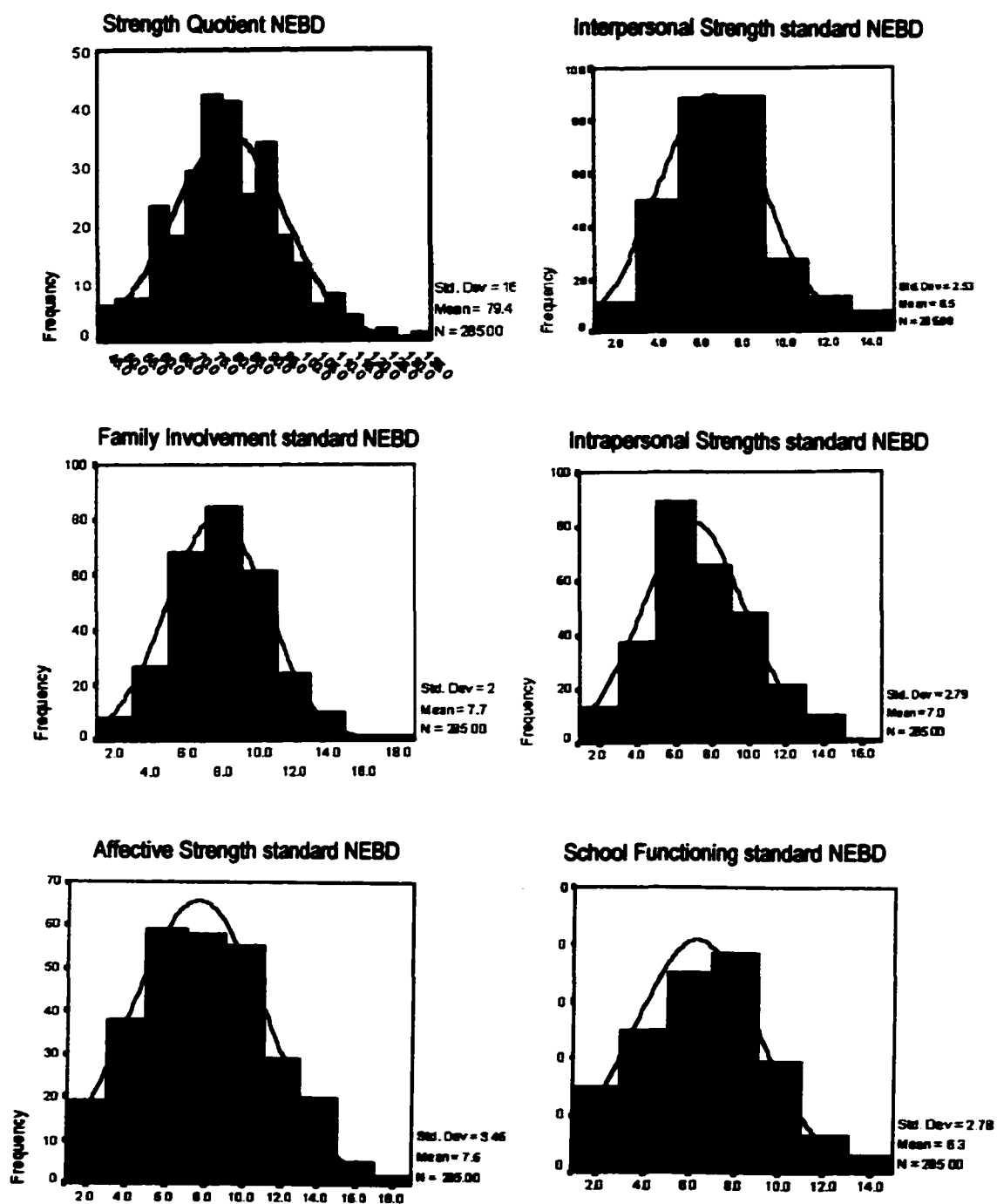
*Note:* N = 285

Figure 2  
RADQ Histograms





**Figure 3**  
**BERS Histograms**



skewness and kurtosis required examination in the presence of the histogram with normal curve of each of the variables (SPSS Inc., 1999). The standard error of skewness for each of the variables was .144 and the standard error of kurtosis for each of the variables was .288.

None of the ratios exceeded +3 or -3, which indicated that the skewness and kurtosis of the variables that did exceed +2 or -2 could be accounted for by the nature of the sample as noted on the histograms. Only the total score on the RADQ was outside the range for kurtosis at -2.48. Three of the variables exceeded the range for skewness: (a) RADQ 12 (which is not a complete scale) at -2.2; (b) BERS Interpersonal Strength at 2.9; and (c) BERS Family Involvement at 2.1. Keeping in mind that this is not a general sample of children may account for the skewness. The two BERS scales most affected are also the most related to AD, which was not a concept measured in the original planning of the BERS. Finally none of the deviation from normality appeared to contain highly skewed distributions.

It is important to remember that the RADQ relies upon a deficit model and the BERS relies on a strengths model resulting in an anticipation of an inverse relationship. As a child scores higher on the RADQ, he or she would tend to score lower on the BERS, or as the child scores lower on the RADQ there would tend to be higher scores on the BERS.

Research Question One addressed the relationship between the

foster child's score on the RADQ and the BERS as determined by the responses of the reporting foster parent, and also concerned the prediction of the score on the RADQ using the BERS. Having determined that none of the involved variables contained a highly skewed distribution allowed use of regression statistics.

Expert review of the BERS and the additional item pool in November of 1998 also included a discussion of the subscales of the BERS and what the ACNW staff felt were the best possible predictors from among the subscales. This group of doctoral and masters level clinicians specialize in the treatment of AD and were therefore requested to provide expert opinions. The recommendation of the ACNW staff was that the School Functioning subscale would not be helpful in predicting AD. Interpersonal Functioning and Family Functioning contained the majority of items considered most likely to be predictive of AD. Based upon this recommendation and the experience of the researcher, Interpersonal Functioning and Family Involvement subscales were identified as most likely to produce the best prediction of the RADQ total score.

### **Bivariate Analyses**

Initial assessment of the relationship between the total RADQ score and the BERS Strength Quotient was made by calculation of a bivariate correlation of Pearson's correlation coefficient (a measure of linear

association) to determine if the two variables were significantly related. See Table 5. The correlation was found to be significant at the 0.01 level and negative, the predicted direction. Based upon these findings a linear regression was calculated on the same two variables in an effort to evaluate the value of the Strength Quotient as a predictor of the RADQ score. See Table 6. Linear regression was used to examine the Strength Quotient scores against scores on the RADQ total score. In this case, only 26.8% or just over a quarter of the variation was explained. This would make the Strength Quotient a marginally moderate predictor of the RADQ score.

Correlations between the RADQ total score and each of the five subscales of the BERS are reported in Table 5 and were all significant at the 0.01 level. All of the correlations were negative, showing that as the RADQ problem-focused scores rise the BERS subscale strength-based scores decrease. From strongest correlation to weakest correlation the five subscales were as follows: Interpersonal Strength (-.578), Family Involvement (-.497), Affective Strength (-.369), Intrapersonal Strength (-.369), and School Functioning (-.351).

Initial assessment of the relationship between the total RADQ 12 items most related to AD raw score and the BERS Strength Quotient was made by calculation of a bivariate correlation of Pearson's correlation coefficient (a measure of linear association) to determine if the two variables were

**Table 5**

**Bivariate Correlations of All Scales and Subscales Used in Study and Overall Sample Scale Internal Consistency Estimates, Number of Scale Items, Possible Scale Ranges, and Standard Deviations**

Measure	RADQ Total	RADQ 12	BERS Strength Quotient	BERS Interpersonal Strength	BERS Family Involvement	BERS Intrapersonal Strength	BERS School Functioning	BERS Affective Strength	BAT 18	BAT 7 RADQ	BAT 7 RADQ 12
RADQ Total	1.00										
RADQ 12	.937	1.00									
Strength Quotient	-.520	-.516	1.00								
Interpersonal Strength	-.578	-.617	.826	1.00							
Family Involvement	-.497	-.478	.864	.673	1.00						
Intrapersonal Strength	-.369	-.369	.874	.650	.691	1.00					
School Functioning	-.351	-.315	.687	.507	.482	.525	1.00				
Affective Strength	-.369	-.369	.840	.602	.696	.710	.349	1.00			
BAT 18	-.697	-.674	.729	.761	.658	.621	.496	.495	1.00		
BAT 7 for RADQ Total	-.723	-.702	.733	.790	.653	.596	.518	.493	.964	1.00	
BAT 7 for RADQ 12	-.717	-.711	.745	.797	.684	.606	.492	.518	.922	.957	1.00
Scale Alpha	.92	.92	.95	.92	.84	.83	.86	.83	.91	.84	.84
Number of Scale Items	30	12	52	15	10	11	9	7	18	7	7
Possible Range-Scale	0-120	12-60	0-164	0-16	0-16	0-17	0-15	0-17	0-54	0-21	0-21
M of Scale Sum	54.31	39.15	79.45	6.48	7.67	7.00	6.28	7.64	24.9	8.87	8.07
Scale SD	23.98	10.98	16.00	2.53	2.78	2.79	2.78	3.46	10.46	4.33	4.33

*Note: N = 285, p ≤ .01 level for all correlations.*

**Table 6****Regression Equation for RADQ Total Score from BERS Strength Quotient NEBD**

Variable	b	Beta	Cumulative Adjusted R Square
Strength Quotient NEBD	-.780 *	-.520	.268

*Note: Number of observations = 285. \*p ≤ .001*

**Table 7****Regression Equation for RADQ 12 Most Related to AD from BERS Strength Quotient NEBD**

Variable	b	Beta	Cumulative Adjusted R Square
Strength Quotient NEBD	-0.354 *	-.516	.264

*Note: Number of observations = 285. \*p ≤ .001*

significantly related. See Table 5. The correlation was found to be significant at the 0.01 level. Based upon these findings a linear regression was calculated on the same two variables in an effort to evaluate the value of the Strength Quotient as a predictor of the RADQ 12 items most related to AD raw score. See Table 7. Linear regression was used to examine the Strength Quotient scores against scores on the RADQ 12 items most related to AD Table 6 & Table 7 raw score. In this case, only 26.4% or just over a quarter of the variation was explained. This would make the Strength Quotient a marginally moderate predictor of the RADQ 12 items most related to AD raw score.

### **Multivariate Analyses**

Based upon the results of bivariate analyses, multivariate analyses were pursued. Multiple regression was utilized to examine the amounts of shared variance between scores on the RADQ and scores on the five subscales of the BERS. Stepwise multiple regression was further utilized to seek a best-fit model between the five subscale scores from the BERS measured against RADQ scores. In this case, the best-fit model was a combination of the Interpersonal Strength and Family Involvement subscales. See Table 8. This model explained 35.5% or just over a third of the variation. This would make the Interpersonal and Family Involvement model a moderate predictor of the RADQ score.

**Table 8****Regression Equation for RADQ Total Score from BERS Subscales Best-fit Model**

Variable	b	Beta	Cumulative Adjusted R Square
Interpersonal Strength Standard Score NEBD	-4.223 <sup>a</sup>	-.445	.331
Family Involvement Standard Score NEBD	-1.698 <sup>b</sup>	-.197	.351

Note: Number of observations = 285. <sup>a</sup> $p \leq .001$ . <sup>b</sup> $p \leq .005$

**Table 9****Regression Equation for RADQ 12 Most Related to AD from BERS Subscales Best-fit Model**

Variable	b	Beta	Adjusted R Square
Interpersonal Strength Standard Score NEBD	-2.618 <sup>b</sup>	-.617	.378

Note: Number of observations = 285. <sup>b</sup> $p \leq .005$



Based upon the results of the multivariate analyses which utilized the total RADQ score, multiple regression was utilized to examine the amounts of shared variance between the RADQ 12 items most indicative of AD and the scores on each of the five subscales of the BERS and the Strength Quotient. Multiple regression was further utilized to seek a best-fit model between the five subscale scores from the BERS measured against the RADQ 12 items most indicative of AD. See Table 9. In this case, the best-fit model was the Interpersonal Strength subscale. This model explained 38% or nearly two fifths of the variation. This would make the Interpersonal Strength subscale a moderate predictor of the RADQ 12 items most indicative of AD. While this offered some corroboration supporting the selected model as a predictor of AD, the 12 items do not constitute a formal subscale of the RADQ. In an effort to improve upon these findings, the investigation moved forward to Research Questions Two and Three which examined scale development to measure AD and application of the BAT framework.

## **Chapter Five: BAT Scale Development Research Results**

### **Research Question Two: Introduction**

**This second focus of the study was a preliminary exploration of whether the BAT categories and sub-categories could be accurately measured through the use of items from the BERS combined with an additional pool of items developed by the investigator.**

**Research question two progressed toward the development of a scale to measure the BAT framework and could provide another potential source of prediction of the RADQ score and an additional means of observing AD. Improved methods of observation for relationships with non-parental figures and other children exist as an established need within the scope of attachment and bonding research (Marvin & Britner, 1999).**

**These analyses were guided by the plan presented in DeVellis (1991). Research question two addressed the following steps: (a) determine clearly what to measure, (b) generate an item pool, (c) set up the format of measurement, (d) conduct expert review of the item pool, (e) administer items, (f) evaluate items, and (g) determine scale length (DeVellis, 1991).**

### **Determining What Is to Be Measured**

**The development of the BAT scale is based upon the theoretical foundation previously presented in Chapter One. The theoretical foundation was thoroughly researched and described prior to the development of items**

for the pool and selection of the BERS as the supportive measurement mechanism. The complexity of the concepts of attachment and bonding are clearly noted in Chapter One. While each category and subcategory of the BAT framework is distinct, they are believed to be components of a single construct known as affectional bonding. Children who suffer AD have experienced a disruption in the normal development of the most fundamental form of affectional bonding, attachment, which exists as the working model providing an organizational system for attachment behaviors (Cassidy, 1999).

#### **Generating the Item Pool and Formatting Items**

In 1998 a strength-based assessment scale became available, the Behavioral and Emotional Rating Scale (BERS) (Epstein & Sharma, 1998). The BERS offered an empirical means of examining what was going well while clearly providing direction for a bridge to intervention. Review of the BERS items revealed strong potential for measurement of a portion of the concepts necessary to an effective scale for the BAT framework. Adding a small number of items to an existing measure in current use potentially provided an opportunity to expand the assessment of AD from the BAT framework while extending the versatility of the BERS with little added burden to those completing the BERS.

The additional pool of items was developed by the author in the categories and sub-categories where little or no overlap existed with BERS

items. The structure of the additional pool was intended to remain faithful to the structure preexisting in the BERS to form a seamless extension to the additional items. A review of question construction principles indicated that a number of potentially sound items were needed for each subcategory (Converse & Presser, 1986; DeVellis, 1991). Ultimately a total of 52 BERS items with an additional 23 items totaling 75 potential items was compiled for BAT scale development. All of the 75 items utilized the format established for the BERS. See Table 10.

#### **Expert Review of the Item Pool**

Attachment Center Northwest provided expert review and sorted the 75 items into those most relevant to AD. The ACNW staff also sorted the BERS and the additional item pool into the categories and sub-categories of the BAT framework. Their review provided one guide to establishing what sets of items to analyze for potential BAT framework measurement. This took place at a clinical meeting of the ACNW staff in early November of 1998. The ACNW staff are trained to work with AD and can be considered a group of experts.

Ultimately ten items were identified for each of the BAT subcategories by ACNW and divided into those most likely to be useful and those with some potential to be useful. A minimum of five promising items existed in each of the subcategories of the BAT framework upon examination of the

**descriptive statistics and plots. Those items capturing the greatest variance and having the most normal distributions were selected.**

Table 10

**BERS\* and Additional Pool of Items for Combined BAT Scale**


---

 This child...
 

---

1. Demonstrates a sense of belonging to family
  2. Trusts a significant person with his or her life
  3. Accepts a hug
  4. Participates in community activities
  5. Is self-confident
  6. Acknowledges painful feelings
  7. Maintains positive family relationships
  8. Demonstrates a sense of humor
  9. Asks for help
  10. Uses anger management skills
  11. Communicates with parents about behavior at home
  12. Expresses remorse for behavior that hurts or upsets others
  13. Shows concern for the feelings of others
  14. Completes a task on first request
  15. Interacts positively with parents
  16. Reacts to disappointments in a calm manner
  17. Considers consequences of own behavior
  18. Accepts criticism
  19. Participates in church activities
  20. Demonstrates age-appropriate hygiene skills
  21. Requests support from peers and friends
  22. Enjoys a hobby
  23. Discusses problems with others
  24. Completes school tasks on time
  25. Accepts the closeness and intimacy of others
  26. Identifies own feelings
  27. Identifies personal strengths
  28. Accepts responsibility for own actions
  29. Interacts positively with siblings
  30. Loses a game gracefully
  31. Completes homework regularly
  32. Is popular with peers
  33. Listens to others
  34. Expresses affection for others
  35. Admits mistakes
  36. Participates in family activities
  37. Accepts "no" for an answer
  38. Smiles often
  39. Pays attention in class
  40. Computes math problems at or above grade level
  41. Reads at or above grade level
  42. Is enthusiastic about life
  43. Respects the rights of others
  44. Shares with others
  45. Complies with rules at home
- 

\*Epstein & Sharma, 1998

- 
46. Apologizes to others when wrong
  47. Studies for tests
  48. Talks about the positive aspects about life
  49. Is kind toward others
  50. Uses appropriate language
  51. Attends school regularly
  52. Uses note-taking and listening skills in school

*End of BERS\* ("Epstein & Sharma, 1998)*

*Additional Pool of Author Developed Items Begins*

53. Interacts positively with animals
  54. Safely interacts with plants
  55. Demonstrates age-appropriate respect for plants
  56. Seeks the closeness of a special inanimate object (teddy, blanket, etc.)
  57. Is kind toward pets
  58. Demonstrates age appropriate care of personal belongings
  59. Interacts positively with younger children
  60. Maintains positive peer relationships
  61. Actively participates in age-appropriate peer activities
  62. Plays safely when younger children are present
  63. Is protective of younger children
  64. Maintains positive relationships with younger children
  65. Offers appropriate help to younger children
  66. Enjoys assisting with plant care
  67. Participates in outdoor activities
  68. Enjoys a hobby that involves plants
  69. Trusts a significant animal in his or her life
  70. Enjoys assisting with animal care
  71. Accepts responsibility for a pet's care
  72. Has an animal that seeks his or her company
  73. Outgrows clothes before wearing them out
  74. Expresses remorse for behavior that is destructive to property
  75. Helps to maintain family property
-

### **The Developmental Sample**

The recommended size of the sample for scale development is approximately 300 to minimize subject variance as a concern, with fewer needed if less than 20 items will be extracted ( DeVellis, 1991). In this study 285 responses were analyzed. With this volume of subjects no complications with subject variance were anticipated. The population studied represented the intended audience for the completed scale, parents of children likely at risk for AD.

One word in the questions did raise some concern. *"Family"* can be an elusive term for children in substitute care. In this case, foster families were studied and may have to some degree been confused with the child's family from which placement occurred. This sample would likely represent the most confusion rather than the least confusion since all of the children under study were placed out of their birth homes. No significant effect upon distributions of scores on the BERS items was noted, and given that three questions on the BERS and one from the Additional Pool of Items contained the word family, no major overall impact was anticipated. Only one of the questions under consideration for the BAT scale contains the word "family", so no difficulty was anticipated in the development of the BAT scale. Future studies may be utilized to clarify this potential concern further.

The sample is, however, potentially higher in the mean value of AD



than a general sample. This may affect the expected scale item means. In spite of this fact there would likely not be an effect upon the internal consistency of the scale ( DeVellis, 1991). The BERS would generally be used for children where some concern existed. The population does afford the anticipation of higher numbers of children who have the concerns for which the BAT scale would be intended. Higher numbers than a general population of children provided an improved opportunity to examine the theoretical construct of concern.

#### **Evaluation of the Items Under Consideration**

Univariate analyses of the items under consideration were conducted. Each variable was examined to determine the distribution of responses. Items which had low variance or had less normally distributed response patterns were eliminated. Distributions closer to a normal curve were preferred. From this examination 5 items from each subcategory were selected for more in-depth consideration. The lists obtained from these sorts were subjected to item analysis.

DeVellis (1991) recommends that the first screening of items under consideration be through the examination of the correlation matrix to determine which items are highly intercorrelated. Items in each of the subcategories were examined together. At this stage of examination 4 items from each of the subcategories were retained based upon subcategory

correlations for further consideration. Each of these items was reviewed as part of the total BAT framework, and 2 items were moved between subcategories. Corrected Item-Total Correlation scores of over .4 were preferred.

Reverse scoring was not considered since none of the items presented with negative correlations to the other items within the subcategory. The likelihood of negative correlations among a single subcategory were also less likely since all questions were written from a strengths perspective. No attempt was made to alternate or reverse the order of the descriptors since this is likely to lead to subject confusion.

#### Optimizing the Scale Length

Eighteen items were selected for the BAT Scale: 2 items from those believed to examine interaction with objects, 2 items believed to examine interaction with plants, 3 items believed to examine interaction with animals, 4 items believed to examine interaction with younger children, 4 items believed to examine interaction with peers, and 3 items believed to examine interaction with adults were included. See Table 11. Within the BAT category groups the bivariate correlations were all significant at the 0.01 level, and all within group bivariate correlations were above .4. The bivariate correlations of all 18 items were significant at the 0.01 level. See Table 12.

Based upon these findings a decision was made to continue the scale

investigation. Consideration was next given to the reliability and validity of the BAT scale items.

Table 11

## BAT Experimental Scale Item Source and Item Category

This child...	BERS* or Added Pool	BERS Subscale	BAT Category
17. Considers consequences of own behavior	BERS	IS	Adults
28. Accepts responsibility for own actions	BERS	IS	Adults
29. Interacts positively with siblings	BERS	FI	Peers
32. Is popular with peers	BERS	IaS	Peers
33. Listens to others	BERS	IS	Peers
35. Admits mistakes	BERS	IS	Adults
43. Respects the rights of others	BERS	IS	Adults
53. Interacts positively with animals	Pool		Animals
54. Safely interacts with plants	Pool		Plants
55. Demonstrates age-appropriate respect for plants	Pool		Plants
57. Is kind toward pets	Pool		Animals
60. Maintains positive peer relationships	Pool		Peers
62. Plays safely when younger children are present	Pool		YC
63. Is protective of younger children	Pool		YC
64. Maintains positive relationships with younger children	Pool		YC
69. Trusts a significant animal in his or her life	Pool		Animals
74. Expresses remorse for behavior that is destructive to property	Pool		Objects
75. Helps to maintain family property	Pool		Objects

*Note:* \*BERS (\*Epstein & Sharma, 1998) and additional pool of items developed by the author.  
*Interpersonal Strengths = IS; Family Involvement = FI; Intrapersonal Strengths = IaS;*  
*Younger Children = YC*

Table 12

## Bivariate Correlations of the BAT 18 Experimental Measure

Subcategory	Variable	75	74	54	55	53	57	69	62	63	64	29	32	60	33	43	17	28	35
Objects	Pool 75	1.00																	
Objects	Pool 74	.636	1.00																
Plants	Pool 54	.373	.267	1.00															
Plants	Pool 55	.379	.275	.886	1.00														
Animals	Pool 53	.375	.269	.436	.417	1.00													
Animals	Pool 57	.420	.323	.459	.436	.847	1.00												
Animals	Pool 69	.428	.305	.332	.300	.631	.601	1.00											
Younger Children	Pool 62	.437	.404	.281	.275	.358	.395	.394	1.00										
Younger Children	Pool 63	.488	.439	.305	.272	.435	.471	.455	.648	1.00									
Younger Children	Pool 64	.449	.367	.330	.278	.415	.442	.469	.721	.817	1.00								
Peers	BERS 29	.379	.279	.201	.170	.306	.338	.235	.429	.357	.419	1.00							
Peers	BERS 32	.217	.177	.154	.175	.218	.218	.153	.264	.255	.335	.322	1.00						
Peers	Pool 60	.413	.377	.262	.287	.359	.331	.289	.469	.412	.488	.509	.648	1.00					
Peers	BERS 33	.370	.343	.213	.254	.217	.292	.156	.349	.332	.351	.428	.434	.510	1.00				
Adults	BERS 43	.552	.459	.381	.383	.373	.420	.365	.485	.504	.511	.462	.332	.553	.533	1.00			
Adults	BERS 17	.448	.471	.310	.325	.285	.358	.248	.385	.400	.382	.389	.277	.402	.443	.559	1.00		
Adults	BERS 28	.438	.458	.253	.254	.337	.415	.261	.365	.407	.395	.451	.323	.464	.415	.536	.645	1.00	
Adults	BERS 35	.436	.471	.298	.254	.280	.304	.304	.344	.445	.395	.325	.266	.382	.456	.487	.509	.639	1.00

Note:  $p \leq .01$

## **Chapter Six: Reliability and Validity of the BAT Scale**

### **Research Question Three: Introduction**

The third research question explored whether the additional pool of items developed by the author, when combined with the items from the BERS, would provide a reliable and valid measure of the BAT categories. The task was to assess the psychometric properties of the measures of the BAT categories including an assessment of the convergent validity of the BAT categories and an examination of the determination of the internal consistency of the BAT categories. Convergent validity of BAT categories was first determined by examining results for significant correlations between the items developed and a priori selected items from the BERS. Internal consistency of the BAT total item pool was assessed through Cronbach's alpha coefficients. Satisfactory progress on the scale allowed reexamination and clarification to optimize the length of the scale, and factor analysis was also conducted. Finally, a satisfactory conclusion to the preceding steps supported an examination of the relationship between the newly developed BAT experimental scale and scores on the RADQ to determine the value of the BAT scale in predicting scores on the RADQ.

### **Significant Scale Correlations**

Item-scale correlations were examined for each theoretically anticipated subcategory and finally for the entire set of items selected for

inclusion in the measure. Attention was given to keeping high item variance and means as close as possible to the center score of 1.5. An alpha coefficient was calculated upon the total set of selected items for the BAT scale and on each subgroup of items.

### Cronbach's Alpha Coefficients

The Alpha Coefficient of all 18 items based upon  $n = 285$  was .9166. The Alpha scores of the theoretical subgroups ranged from .78 to .94: (a) Objects (2 items) .78; (b) Plants (2 items) .94; (c) Animals (3 items) .84; (d) Younger Children (3 items) .89; (e) Peers (4 items) .79; and (f) Adults (6 items) .85. The total BAT scale coefficient of .91 is an indication of meeting a desirable standard for such scales. The alpha coefficient levels for each of the theoretical subgroups approximated the .80 standard overall and appeared to warrant progressing to factor analysis.

The assumption cannot always be made that because an assessment instrument scores as reliable for the total sample that it will do so for subgroups of the sample. Internal consistency may also be checked for identified subgroups. Concern existed about sample subgroups and sufficient numbers existed in this sample to calculate coefficient alphas for males, females, and three age groupings: (a) males ( $n=152$ ) .91; (b) females ( $n=133$ ) .91; (c) 6-10 years ( $n=102$ ) .92; (d) 11-14 years ( $n=103$ ) .90; and (e) 15 years to 20 ( $n=80$ ) .91. These results would indicate that gender and age

did not adversely affect the reliability of the BAT scale. In addition, it would be preferable to have sufficient numbers in a variety of cultural groups in future samples to determine if these findings hold true for these sample subgroups. Based upon these results there is reason to believe that the reliability of the BAT scale supports reasonable confidence at this preliminary analysis. Future samples recruited for additional studies will need to be balanced with sufficient numbers of racial and ethnic groups to make these explorations possible.

#### **Scale Factor Analysis**

Validity concerns the degree to which an instrument measures the attributes that the author contends that it measures. Thus far the content validity of the items has been discussed based upon theoretical support, expert review, and statistical analysis of items. An examination of these data by factor analysis was also utilized to determine if the theoretical dimensions of the BAT were actually being measured as part of the overall construct of attachment.

A principal components factor analysis utilizing a varimax rotation with Kaiser Normalization was run with Eigenvalues set at .6. Six factors were extracted which loaded at .40 or higher as predicted based upon the theoretical foundation for all but two of the 18 items. See Table 13. One of the items (item 29), "Interacts positively with siblings", originally designated



Table 13

## Factor Loadings for Biopsychosocial Attachment Types (BAT 18) Scale Items

Item	BAT Category	Factor I	Factor II	Factor III	Factor IV	Factor V	Factor VI
Pool 75	Objects						.72
Pool 74	Objects						.81
Pool 54	Plants					.92	
Pool 55	Plants					.92	
Pool 53	Animals			.86			
Pool 57	Animals			.80			
Pool 69	Animals			.79			
Pool 62	Younger Children		.80				
Pool 63	Younger Children		.79				
Pool 64	Younger Children		.84				
BERS 29	Peers	.45			.44		
BERS 32	Peers				.87		
Pool 60	Peers				.78		
BERS 33	Peers	.48			.55		
BERS 43	Adults	.50					.40
BERS 17	Adults	.74					
BERS 28	Adults	.82					
BERS 35	Adults	.71					
Eigenvalues		6.21	1.55	1.26	.98	.88	.61

Note: Factor Loading  $\geq .40$  ( $N = 285$ ) Principal Component Analysis-Varimax with Kaiser Normalization

for younger children (.232) loaded with the factor for peers (.44) and for adults (.45), which was reasonable since wording of the item utilized “siblings” and siblings may be considered within the same generation and is evaluated by adults. The second item (item 33), “Listens to others”, originally designated for peers (.48) loaded with the factor for adults (.55). Item 33 also has more generic language and simply refers to “others.”

Based upon these results, the BAT experimental version containing 18 items was reasonably supported. This scale was now established as ready for potential use in additional explorations and samples designed to provide necessary information for establishing norms. Comparison of the BAT scale to the RADQ was then undertaken through regression analysis.

#### The BAT Scale and the RADQ

Regression analysis of the BERS Strength Quotient and the subscales of the BERS as predictors of the RADQ and RADQ 12 had at best yielded an adjusted R Square of .378 and was a moderate predictor. Is the score on the BAT scale useful for predicting a score on the RADQ? A determination of the relationship between the newly developed BAT experimental version scale and the scores on the RADQ was undertaken by regression analysis.

Regression analysis examined the predictive validity of the BAT scale scores as a predictor for RADQ scores, and therefore as an indication of AD as measured by the RADQ. Regression analysis of the relationship between the

BAT scale and the RADQ 12 items most related to AD was also conducted. From these results a best-fit model was examined for the total RADQ score and for the RADQ 12 items most related to AD.

#### **The Best-fit Model for the Total RADQ Score**

All 18 of the variables which comprised the BAT scale were entered into the linear regression utilizing a stepwise model. Seven models were extracted and the selected model was composed of questions 43, 62, 35, 57, 60, 75, and 17. This model was selected since it afforded the highest Adjusted R Square (.515) and the lowest Standard Error of the Estimate (16.71). Collinearity Statistics were also examined for this model and it was determined that none of the variables posed a concern. The highest score on the Condition Index was 8.820 and, given that possible problems are noted to begin from 15 to 30, no concern was raised. Seven variables provided a substantial prediction of the total RADQ score. See Table 14. The Cronbach's Alpha for these seven items was .8412 and was considered acceptable.

#### **The Best-fit Model for the RADQ 12 AD Items**

To examine the relationship between the BAT scale items and the RADQ 12 items most related to AD, a similar examination was conducted. See Table 15. Again the results yielded a seven variable solution, but with two of the variables altered. The model selected included items 43, 62, 35,

Table 14

## Regression Equation for RADQ Total Score Best-fit Model from BAT 18

Variable	b	Beta	Cumulative Adjusted R Square
43. Respects the rights of others	-6.010 <sup>a</sup>	-.206	.370
62. Plays safely when other children are present	-4.458 <sup>a</sup>	-.166	.434
35. Admits mistakes	-4.257 <sup>b</sup>	-.143	.470
57. Is kind toward pets	-3.333 <sup>c</sup>	-.123	.488
60. Maintains positive peer relationships	-3.855 <sup>b</sup>	-.145	.502
75. Helps to maintain family property	-2.947 <sup>c</sup>	-.112	.510
17. Considers consequences of own behavior	-3.185 <sup>c</sup>	-.107	.515

Note: N = 285. <sup>a</sup>p ≤ .001; <sup>b</sup>p ≤ .006; <sup>c</sup>p ≤ .05

Table 15

## Regression Equation for RADQ 12 Most Related to AD Best-fit Model from BAT 18

Variable	b	Beta	Cumulative Adjusted R Square
43. Respects the rights of others	-2.497 <sup>a</sup>	-.187	.370
62. Plays safely when other children are present	-1.318 <sup>c</sup>	-.107	.434
35. Admits mistakes	-2.505 <sup>a</sup>	-.184	.470
60. Maintains positive peer relationships	-1.711 <sup>c</sup>	-.141	.486
17. Considers consequences of own behavior	-1.689 <sup>c</sup>	-.124	.495
29. Interacts positively with siblings	-1.645 <sup>c</sup>	-.129	.502
74. Expresses remorse for behavior that is destructive to property	-1.322 <sup>c</sup>	-.110	.507

Note:  $N = 285$ . <sup>a</sup> $p \leq .001$ ; <sup>b</sup> $p \leq .002$ ; <sup>c</sup> $p \leq .04$

60, 17, 29, and 74. This model was selected since it afforded the highest Adjusted R Square (.507) and the lowest Standard Error of the Estimate (7.79). Collinearity Statistics were also examined for this model, and it was determined that none of the variables posed a concern. The highest score on the Condition Index was 7.359 and, given that possible problems are noted to begin from 15 to 30, no concern was raised. Seven BAT items provided substantial prediction of the RADQ 12 items most related to AD. The Cronbach's Alpha for these seven items was .8438 and was considered acceptable.

Of the 104 children scoring in the AD range, the P-RADQ top 104 scores accurately identified 67.3% of the children. The combined strength of the BERS and the author developed pool of items therefore allowed for a 67% prediction of those children scoring in the AD range.

Overall, these results provided a sound experimental measure for each of the three BAT categories under exploration. The 18-item version measures the BAT framework, while a 7-item version selected from the original 18 items functions as a predictor of the total RADQ score. The fourth exploration to predict the RADQ 12 items yielded a 7-item predictor which shared 5 items with the total score predictor and identified 2 more items from the 18 item BAT measure for a total of 7 items. As more information is gained in future studies the overall BAT Scale may require fewer items.

## **Chapter Seven: Discussion and Conclusions**

### **Discussion**

**Attachment theory has consistently supported the belief that the foundation attachment model developed by children in the first year of life solidifies by the fifth year, and influences the relationships of individuals for the remainder of their lives. Research continues to support this belief. In addition, there has been a growing understanding since 1980 that “viewing attachment as a relationship construct suggests that the validity of any measure of attachment security will depend on concurrent evidence that the individual has confidence in the availability of his or her primary attachment figure” (Kobak, 1999, p. 40). Many children in foster care for more than brief periods appear to be in grievous distress based upon the results of this study. These children in extraordinary numbers lacked the stability of a secure internal model as well as access to the primary attachment figure which placed their mental health at alarming risk.**

**An understanding of the child's confidence in the availability of a source of comfort for excessive anxiety is the incremental focus of the BAT framework at the theoretical, practical, and measurement levels. For children who have had many placements and many caregivers, what is offered to the child by the parenting adults is not as crucial as what the child is able to accept, assuming safety and minimal sufficiencies. Children with the most**

disrupted lives often present as extremely skeptical when yet another adult offers love and care. When these children are placed in a situation where love surrounds them, they are unable to risk letting in love and comfort. Picture a child who has lived with extreme hunger suddenly sitting at a feast wanting to eat, but totally immobilized by terror and unable to begin.

The BAT framework developed by the author suggests that for some children humans cease to be the source of the secure base and that, along with a hierarchy of human attachments, other hierarchical relationships exist that are more primitive than human relationships (Kellert & Wilson, 1993). For each child a complex interaction of personality, experiences, and historical influences combine to determine how far from a secure inter-generational human attachment the child must seek to achieve comfort and a reduction of anxiety. The most distressed children rely only upon trusted objects, while other children are able to find comfort by retreating to interactions with plants and animals. The ultimate goal for each child would be to assist him or her in achieving successful bonds with younger children, peers, and finally adults, for it is only within the context of these human relationships that optimal development, comfort, and a secure base is achieved.

The examination of AD assessment based upon the BAT framework advances a structure for development of an assessment and intervention to



increase the bonding capacity of children ages 6 to 18. This preliminary study is intended to determine the viability of the BAT framework and provide additional clarification on the assessment of AD. The results support continued investigation of this theoretically based approach.

The BERS potential for use in assessment, treatment planning, and the evaluation of progress in treatment indicated that the purpose of the BERS and the BAT scale would be compatible. At present AD assessment, treatment planning, and evaluation of progress require parents to complete scales and interviews primarily focused on the problems and deficiencies of the child. Children come to in-depth assessment for AD specifically, and few opportunities exist for assessment at a more global level. More efficient up-front approaches capable of reducing testing burdens on families while encouraging additional, earlier, and more available preliminary assessment and intervention options emphasizing the child's strengths are congruent with a staunch belief in family support principles (Friesen & Poertner, 1995).

The demographics of the participants of The Foster Family Survey reveal a sample of foster parents who, in majority, are considered to be moderately to highly qualified by the standards of BC. Skilled foster parents are identified in BC through a level system of home/careprovider evaluation. This group of primarily Caucasian female careproviders are generally between 30 and 60 years of age. Half of these foster parents have over 5

years of experience with foster care. Of the foster parents responding, 93% indicated that they had primary responsibility for the care provided in their home.

The children were described as 47% female and 53% male and matched the percentage of male to female children in these age ranges in BC. The racial and ethnic identities of the children were primarily Caucasian and First Nations with only small numbers of children of Hispanic, Asian, and African American ethnicity reported. Over two thirds of the children were between 6 and 14 years. Mental health diagnosis had been formally determined for about 45% of the children; however, foster parents reported much higher rates of concern based upon information from a variety of professionals and their own observations. Because the children in this sample had been in care 6 months or longer, they were not placed in care for short term concerns of the child or the family. Easily solved problems did not bring them into substitute care.

Foster parents reported AD as a concern for approximately 31% of the children, with the RADQ showing a high probability of AD for about 37%. These numbers are remarkably similar and most likely the result of an increased awareness brought about by years of training in BC on attachment disorder. Foster parents in BC have actively expressed concern about attachment ever since a small group of BC foster parents attended the

National ATTACH Conference held in Seattle, Washington in 1993. Training is highly valued in BC; foster parents were quick to see the need for extensive and ongoing training on AD in children 5 to 18 years.

In general populations only 1% to 2% of children are believed to be in a clinical range for AD. This sample was selected based upon the belief that a higher concentration of AD would be present. Even in light of the anticipated concerns, the results for this sample (36.5%) are staggering and indicate a compelling need to continue to explore the presence of AD in children in the 6-18 age range.

#### Prediction of the RADQ Scores

Research Question One explored the use of the BERS Strength Quotient and the subscales of the BERS to predict scores on the RADQ in an effort to assess AD in children ages 6 to 18 years. The Strength Quotient of the BERS was able to predict 26.8% of the variance on the RADQ total score (see Table 6). At best this represents a low moderate level of prediction. When the subscales were considered as potential predictors, 2 subscales provided the best result. The Interpersonal Strength NEBD Standard Score and the Family Involvement NEBD Standard Score together comprised the best potential predictor. Together these 2 subscales were able to account for 35.1% of the variance of the RADQ (See Table 8). Again this may be considered moderate prediction of the RADQ total score.

Efforts to check on the predictive values were accomplished through use of a subset of the RADQ 12 questions known to apply to those children clinically assessed as having AD. The analysis resulted in similar predictive values with the BERS Strength Quotient providing a 26.4% prediction of variance for the RADQ 12 items (see Table 7). The best-fit subscale model included only the Interpersonal Strength NEBD Standard Score and was able to predict 37.8% of the variance in the RADQ 12 items (see Table 9).

Data analysis continued since analysis results obtained did not appear to be the optimum choice for predicting a score on the RADQ. The belief that a combination of the additional pool of items developed by the author and selected questions from the BERS would potentially improve the prediction motivated further exploration into assessment of AD in children ages 6 to 18 years.

#### BAT Scale Development Research

Research Question Two relied upon the theoretical framework of the BAT to formulate a selection of questions to assess AD in children. Originally it was believed that the BERS contained many of the questions related to behaviors supportive of relationships with humans, and that the dimension of the BAT that included the object category and non-human living things area needed to be enhanced. Through a process of review with the experts at ACNW, a selection of questions developed by the author which expanded

upon questions related to objects, plants, animals, younger children, and peers was added to The Foster Family Survey. The analysis continued through an examination of these items and the items of the BERS by category and subcategory.

Item analysis yielded an 18-item experimental scale believed to represent a measure of the BAT categories of objects, plants and animals, and humans. Much work remains before concluding that this is the most appropriate model upon which to base assessment. However, these findings do offer some encouragement for continued exploration of the structure of the BAT categories and subcategories in the assessment of the concept of attachment.

#### Reliability and Validity of the BAT Scale

Research Question Three examined the internal consistency of the BAT 18-item experimental measure developed in the analysis of Research Question Two. The BAT measure displayed significant correlations with the RADQ and the RADQ 12 items most representative of AD. The correlations with the BERS were also significant, yet caution is necessary since the BAT measure contains questions from the Interpersonal Strength (5 of 15), Family Involvement (1 of 10), and Intrapersonal Strength (1 of 11) subscales and therefore these questions are part of the Strength Quotient (7 of 52).

The internal consistency of the BAT measure was examined through

the computation of alpha coefficients for the total measure (Cronbach, 1951). This coefficient of .91 compares well with generally accepted standards of reliability, whereby coefficients over .80 are considered substantial (DeVellis, 1991).

The validity of the BAT measure was addressed by independent ratings of items made on the basis of construct definitions by the ACNW expert clinical staff. None of the staff had prior familiarity with the relationship of the items to the conceptual framework and all had specialized training in the area of AD. They were given an overview of the BAT framework and classified the items into the categories. The items were discussed after each person had an opportunity to independently rate the items, and a high level of consensus was apparent.

Factor analysis was conducted upon the 18 items. When the items were examined at an Eigenvalue of .6 and over, the six subcategories of the BAT emerged. Information on factorial validity can be gained by the loading of items on factors established to create the item pool (DeVellis, 1991). The findings from the factor analysis generally support the conceptual framework. The strongest factor is most related to the human relationships, followed by plants and animals, and finally objects. The BAT framework considers this same hierarchy, and certainly attachment is a concept traditionally related to human relationships only. It is also important to note that the younger

children subcategory weighted more similarly to the adult subcategory, which may indicate that peer relationships have less to do with the inter-generational aspect of attachment.

Finally the BAT 18-item experimental scale items were entered into a stepwise linear regression to determine the predictive value of these items. A 7-item best-fit model was determined for the RADQ and a second 7-item best-fit model was determined for the RADQ 12 items most closely related to AD. Together these two models utilized 9 of the 18 items of the BAT measure. These two sets of items each had an alpha coefficient of .84 which is considered substantial (DeVellis, 1991). The adjusted R square of .515 for the RADQ total score is considered highly predictive. This result could not be achieved with items currently in the BERS alone.

Similar stepwise regressions were computed for the RADQ 12 items most linked to AD. These results were computed to be certain that the measurement was capturing the essential characteristic assessed by the RADQ. Major differences in the amount of variation being measured or the items included in the best-fit models would have called into question the basic concept being measured. The best-fit models extracted from the 18 BAT items for the RADQ measured 51.5% of the variance compared to 50.7% of the variance of the RADQ 12 items. Considerable overlap existed in the items selected for the two best-fit models. The 18 BAT items were the

source of the best predictions found in this analysis.

### **Contributions of This Research**

Assessment of attachment from the strengths perspective and by the BAT framework fundamentally provides a sound theoretical basis for developing interventions for AD. The BAT framework is intended to guide assessment and to combine with other clinical interventions. Careful evaluation of any interventions developed and additional research on the BAT framework may clarify the value of this theoretical foundation for actual practice.

Eleven items may be added to the BERS to measure the BAT framework and to predict a value on the RADQ (P-RADQ). The items utilized to predict the RADQ are composed of 3 items from the BERS and 4 items from the pool of items developed by the author. Together these 7 questions predicted 51.5% of the variation on the RADQ and allow the BAT 18 to be utilized to screen children in need of further assessment by the RADQ and/or full clinical assessment if indicated. By establishing incremental screening methods the identification of concerns related to attachment disorder will be possible for more children with less burden. This has the potential of identifying concerns for children in distress earlier in their developmental stages.

Full assessment for AD requires clinical interviews and a considerable



investment of time, effort, and resources. The need to screen for concerns related to attachment and bonding at a significantly reduced cost in time, effort, and resources could potentially yield earlier intervention for children in need of assistance. By improving the identification of children with AD and attachment problems and by making identification compatible with other forms of assessment currently in use more research can be conducted on children with these concerns to determine what effectively assists them. At the same time, the screening may also encourage options for reducing risks related to inhibited bonding capacity and for increasing protective factors related to a strengthened capacity to bond. The goal to improve methods of observation for relationships with non-parental figures and other children exists as a current and timely need within the scope of attachment and bonding research (Marvin & Britner, 1999). This study yields a number of results capable of making a contribution toward this goal while also affording potential for additional future investigations.

#### **Policy Level Implications**

The RADQ scores of 36.5% of the foster children in this sample indicated an urgent need for assistance with and clarification of their attachment status. This notably high number of children in a large sample raises concerns for all children who live in foster care. The fact that 53% of these same children scored in a range likely to indicate EBD on the BERS

raises additional concern. Fewer than 25% of the children in this study scored in the average or above range of strengths on the BERS. Startlingly high numbers of the children in this foster care sample exhibited major distress.

Children are assisted for distress caused by biologically based and psychologically based mental health concerns through interaction with a variety of adults who have the assigned task of nurturing and protecting them. Serious concern is raised when over a third of these vulnerable children who require societal assistance are exhibiting symptoms consistent with a limited ability to assimilate the benefits offered by these services. Continuing an extensive investment in resources incapable of reaching the children in need and failing to produce the intended outcome with those resources would appear to indicate an urgent need for a change in approach. An increase in research efforts to assess effectiveness of current and emerging methods is desperately needed.

Reactive Attachment Disorder was first described in the *DSM III* (American Psychiatric Association, 1980). Since being added to the list of mental health concerns for children, it has been largely ignored by professionals who diagnose and treat children (Minnis et al., 1996). In contrast, the parents who attempt to love and care for the affected children have not ignored this diagnosis. Many go to extraordinary lengths to seek out

professionals who are willing to work with their children suffering from RAD. This study raises concerns about the assessment of children in a variety of settings such as juvenile justice, child welfare, and mental health, and offers incremental alternatives for beginning to examine the attachment needs of these populations.

High risk populations of children such as those found in juvenile justice, child welfare, and mental health settings have suffered from a variety of environmental and biological challenges which have not always been identified and treated (Taylor, 1998). Risk and resilience literature has consistently identified a relationship with at least one person as a fundamental necessity for each child (Bachay & Cingel, 1999; Horwitz, 1998; National Association of Mental Health Centers, 1996; Smith & Carlson, 1997). The child's ability to receive love is as crucial as making love available to the child (Clarke & Dawson, 1998; Cline, 1992; Coffman, Levitt, & Guacci-Franco, 1995). Human beings tend to incorrectly evaluate risks related to things that are viewed as natural or normal (Ross, 1995). Attachment exists as a fundamental and naturally developing basis for human relationships and appears to have been historically under emphasized for children over age 5 years. Consequently children between the ages of 6 and 18 in need of assessment and treatment for AD have not received the help they so desperately needed (Marvin & Britner, 1999).

Assessment is the first step in addressing the needs of children with AD, many of whom are likely to be concentrated in juvenile justice, child welfare, and mental health settings.

### **Future Research**

Many additional studies are needed to clarify and further develop the assessment potential of the BAT 18 experimental measure. Among these needs are large general population samples for establishing norms. Future samples which are more balanced and have sufficient numbers of varied racial and ethnic groups are needed to clarify item functioning and to determine the stability of the measures across diverse populations. Test-retest reliability also needs to be determined over time.

Based upon this study, completion of the BERS alone is not sufficient to evaluate the attachment status of a child. Combining the BERS with the additional pool of author developed items indicated that a potential new approach to screening children may emerge. Future research on this model may provide necessary clarification. All children who are scored on the BERS have the usual advantage of information capable of contributing to educational planning, treatment planning, and evaluation of their programs, treatments, or service agencies. Among those evaluated, children who have impaired attachment are believed to be less amenable to treatment improvement; by adding the 11 author-developed items needed for the BAT

scale these children may be identified and given additional necessary services to improve their receptivity to usual treatments.

Examination of the top 104 scores on the RADQ (scores at or above 65) and the top 104 scores of the P-RADQ (predicted score of 60.75 or over) resulted in 67.3% of the children with AD being identified. The combined strength of the BERS and the author developed pool of items therefore allowed for a 67% prediction of those children scoring in the AD range.

Children identified as having a need for intervention for AD deserve to be offered a variety of promising assessments and interventions to see if they significantly improve. Among these potential assessments and interventions may be the implementation and testing of components based upon the BAT framework. This assessment is conceptualized to be provided in a variety of settings with a variety of providers. This pilot study appears to show that a promising foundation for assessment may exist in the BAT framework.

Picture a child gently and slowly guided to what he or she needs by compassionate, supportive adults who acknowledge that for now the child needs comfort from less risky sources. Adults who are committed to keeping the child safe will stand nearby providing the necessary incremental experiences to expand the child's confidence and competence. Perhaps one day, when the child is not looking, this parent will become the real source of the comfort, not just the protector of access to comfort.

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**APPENDICES**

**Appendix A****Questionnaire: The Foster Family Survey**



## *British Columbia* Federation of Foster Parent Associations

PC PORTLAND STATE  
UNIVERSITY  
UNIVERSITY

January 27, 1999

Dear foster family parent:

Thank you for your willingness to be part of this study of foster parents' learning preferences and foster child attachment. As you know, attachment and bonding are a challenge for children in foster care. Our study is gathering information from foster parents about their experiences with learning and attachment disorder.

**Who should participate?** Before you fill out the questionnaire, please note that we want to include in this study only foster parents whose foster children (ages 6-18) have received fostering for 6 months or more with dates in the past 12 months. This is to be sure that the information we get reflects current practice. If this does not describe your situation, please do not return the questionnaire to us.

**What's the purpose of this research? What will the information be used for?** We will use the study findings to describe foster parent training needs, as well as attachment concerns of foster children. This information can be used directly by foster parents in helping to shape training, by professionals to examine their practice, and in training programs for social workers, psychologists, teachers, and other service providers.

**Does this have anything to do with services for my child?** This study is not connected with any services you or your foster child may be receiving, and will not affect your eligibility for services in any way. Your participation in this study is entirely voluntary. Your answers will be anonymous; your name, address, or other information that could identify you will not be attached to the questionnaire you fill out. Completion of the questionnaire is your consent to participate.

**How long will it take to fill out the questionnaire?** Family members who helped us prepare the questionnaire found that it takes an average of 30 minutes to complete.

**Will this help me and my foster child? Will I be paid for my participation?** The information that you give us will probably not directly benefit you or your foster child, but we hope that the results will be used to encourage improved training and the assessment of attachment disorder. You will not be paid for completing the questionnaire, but you can choose to attend training sponsored by the BCFFPA and the Researcher. You can ask for a copy of the research findings



at the training, ask to have them mailed to you by contacting the BCFFPA, or read about the results in the quarterly BCFFPA President's Letter to foster parents in BC. To keep your answers on the questionnaire anonymous, be sure to put your completed questionnaire in the separate postage-paid envelope and do not add your name or return address.

**What if I want more information about this study before I fill out the questionnaire?** You can call A. Myrth Ogilvie, Principal Investigator for the study, at (503) 725-4160, or you can leave a message for her to call you back; or you can call Kay Dahl, BCFFPA President, in BC at (250) 287-2709. Either will give you more information about the study and answer any questions that you may have. Your completion of the survey implies your consent to be a study participant. If you have concerns about the study, they can be directed to Chair, Human Subjects Research Review Committee, Research and Sponsored Projects, P.O. Box 751, Portland State University, 97207-0751, (503) 725-3417.

Thank you for your participation in this research. Foster parent training and foster child attachment and bonding are important for the care and protection of children. The information that you and other foster family members provide to us will help to improve training and future research for children with attachment disorders. We appreciate your help!

Sincerely,

[Redacted Signature]  
A. Myrth Ogilvie, Principal Investigator  
(503) 725-4160

[Redacted Signature]  
Kay Dahl, BCFFPA President  
In BC at (250) 287-2709

Provincial Office  
301-3680 E. Hastings St.  
Vancouver BC V5K 2A9  
Tel (604) 660-7696  
Fax (604) 775-1183  
Foster Line 1 800-663-9949

**FOSTER FAMILY SURVEY**  
(One per household)

*Thank you for participating in this survey of families fostering children in placement for assistance and for treatment of emotional, behavioral, or mental disorders. This includes children and youth ages 6-18 years who have been in placement for a minimum of six months with dates in the past 12 months. If you have not had a child in placement with you for more than six months, with a portion of that period in the past 12 months, please do not complete the survey. If you have had more than one child who has been in your care over 6 months and in your home in the past 12 months, please select the child with the most serious emotional, behavioral, or mental problems while answering. Please have the parenting adult with the most parenting responsibilities complete the survey.*

**PART 1--FOSTER CHILD INFORMATION & STRENGTHS**

*If you have had more than one child who has been in your care over 6 months with dates in the past 12 months, please select the child with the most serious mental, emotional, or behavioral problems while answering Parts 1 & 2. Part 1 takes about 15 minutes.*

1. The child's sex?    ☐ Male    ☐ Female
2. What was the child's age at the time of placement? \_\_\_\_\_ years
3. What is the child's current age? \_\_\_\_\_ years
4. Have you been given a name or diagnosis for the child's mental health status? ☐ Yes    ☐ No
5. What is your understanding of the child's mental health status? (Check all that apply)
 

<input type="checkbox"/> Adjustment Disorder <input type="checkbox"/> Anxiety Disorder <input type="checkbox"/> Attachment Disorder <input type="checkbox"/> Attention-Deficit Hyperactivity Disorder <input type="checkbox"/> Autistic Disorder <input type="checkbox"/> Avoidant Disorder <input type="checkbox"/> Bipolar Disorder <input type="checkbox"/> Childhood Depression <input type="checkbox"/> Childhood Disintegrative Disorder <input type="checkbox"/> Conduct Disorder <input type="checkbox"/> Eating Disorder <input type="checkbox"/> Emotional Disorder (SED)	<input type="checkbox"/> Fetal Alcohol Syndrom <input type="checkbox"/> Fetal Alcohol Effect (Alcohol-related Neuro-developmental Disorder/Alcohol-related birth defects) <input type="checkbox"/> Learning Disability <input type="checkbox"/> Multiple Personality Disorder <input type="checkbox"/> Oppositional Defiant Disorder <input type="checkbox"/> Personality Disorder <input type="checkbox"/> Pervasive Developmental Disorder <input type="checkbox"/> Post Traumatic Stress Disorder <input type="checkbox"/> Schizophrenia <input type="checkbox"/> Tourette's Disorder <input type="checkbox"/> Don't know <input type="checkbox"/> No diagnosed disorder
--	--

☐ Others: (List \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_)
6. The child's disability status? (Check all that apply)
 

<input type="checkbox"/> No Disability <input type="checkbox"/> Learning Disability <input type="checkbox"/> Speech-Language Disorder <input type="checkbox"/> Mental Handicap <input type="checkbox"/> Other Handicap _____
--
7. How long have you been or were you the primary caregiver for this child? \_\_\_\_\_ years \_\_\_\_\_ months
8. What is the last date this child was in your care? \_\_\_\_\_ month \_\_\_\_\_ year
9. What is this child's race/ethnicity?: \_\_\_\_\_

PLEASE GO ON TO THE NEXT PAGE



10. How many primary care providers, including yourself, has this child had since birth?

\_\_\_\_\_ is the exact number, or

\_\_\_\_\_ is my best estimate but I don't know the exact number, or

[ ] I can't make a reasonable estimate—I don't know

**BERS: Behavioral and Emotional Rating Scale\***

Directions: The *Behavioral and Emotional Rating Scale* (BERS) contains a series of statements that are used to rate a child's behavior and emotions in a positive way. Read each statement and circle the number that best describes the child's status over the past three months. If the statement is *very much like* the child, circle the 3; if the statement is *like* the child, circle the 2; if the statement is *not much like* the child, circle the 1; if the statement is *not at all like* the child, circle the 0. Rate each statement to the best of your knowledge of the child. \*Epstein, M. H., & Slone, J. M. (1998). *Behavioral and emotional rating scale: A strengths-based approach to assessment—Examiner's manual*. Austin, TX: Pre-Ed. By permission.

EVALUATE THESE STATEMENTS BASED UPON THE CHILD'S BEHAVIOR NOW or WHEN YOU LAST CARED FOR HIM OR HER BY CIRCLING ONE RESPONSE FOR EACH STATEMENT. *Includes Items 1-52 STATEMENT: THIS CHILD.....	This is very much like the child	This is like the child	This is not much like the child	This is not at all like the child
1. Demonstrates a sense of belonging to family	3	2	1	0
2. Trusts a significant person with his or her life	3	2	1	0
3. Accepts a hug	3	2	1	0
4. Participates in community activities	3	2	1	0
5. Is self-confident	3	2	1	0
6. Acknowledges painful feelings	3	2	1	0
7. Maintains positive family relationships	3	2	1	0
8. Demonstrates a sense of humor	3	2	1	0
9. Asks for help	3	2	1	0
10. Uses anger management skills	3	2	1	0
11. Communicates with parents about behavior at home	3	2	1	0
12. Expresses remorse for behavior that hurts or upsets others	3	2	1	0
13. Shows concern for the feelings of others	3	2	1	0
14. Completes a task on first request	3	2	1	0
15. Interacts positively with parents	3	2	1	0
16. Reacts to disappointments in a calm manner	3	2	1	0
17. Considers consequences of own behavior	3	2	1	0
18. Accepts criticism	3	2	1	0
19. Participates in church activities	3	2	1	0
20. Demonstrates age-appropriate hygiene skills	3	2	1	0
21. Requests support from peers and friends	3	2	1	0
22. Enjoys a hobby	3	2	1	0
23. Discusses problems with others	3	2	1	0

PLEASE GO ON TO THE NEXT PAGE

<b>STATEMENT: THIS CHILD.....</b>	<b>This is very much like the child</b>	<b>This is like the child</b>	<b>This is not much like the child</b>	<b>This is not at all like the child</b>
24. Completes school tasks on time	3	2	1	0
25. Accepts the closeness and intimacy of others	3	2	1	0
26. Identifies own feelings	3	2	1	0
27. Identifies personal strengths	3	2	1	0
28. Accepts responsibility for own actions	3	2	1	0
29. Interacts positively with siblings	3	2	1	0
30. Loses a game gracefully	3	2	1	0
31. Completes homework regularly	3	2	1	0
32. Is popular with peers	3	2	1	0
33. Listens to others	3	2	1	0
34. Expresses affection for others	3	2	1	0
35. Admits mistakes	3	2	1	0
36. Participates in family activities	3	2	1	0
37. Accepts "no" for an answer	3	2	1	0
38. Smiles often	3	2	1	0
39. Pays attention in class	3	2	1	0
40. Computes math problems at or above grade level	3	2	1	0
41. Reads at or above grade level	3	2	1	0
42. Is enthusiastic about life	3	2	1	0
43. Respects the rights of others	3	2	1	0
44. Shares with others	3	2	1	0
45. Complies with rules at home	3	2	1	0
46. Apologizes to others when wrong	3	2	1	0
47. Studies for tests	3	2	1	0
48. Talks about the positive aspects of life	3	2	1	0
49. Is kind toward others	3	2	1	0
50. Uses appropriate language	3	2	1	0
51. Attends school regularly	3	2	1	0
52. Uses note-taking and listening skills in school	3	2	1	0

PLEASE GO ON TO THE NEXT PAGE

<i>End of BERS* Continue on with the Additional Items</i>	<i>This is very much like the child</i>	<i>This is like the child</i>	<i>This is not much like the child</i>	<i>This is not at all like the child</i>
53. Interacts positively with animals	3	2	1	0
54. Safely interacts with plants	3	2	1	0
55. Demonstrates age-appropriate respect for plants	3	2	1	0
56. Seeks the closeness of a special inanimate object (teddy, blanket, etc)	3	2	1	0
57. Is kind toward pets	3	2	1	0
58. Demonstrates age-appropriate care of personal belongings	3	2	1	0
59. Interacts positively with younger children	3	2	1	0
60. Maintains positive peer relationships	3	2	1	0
61. Actively participates in age appropriate peer activities	3	2	1	0
62. Plays safely when younger children are present	3	2	1	0
63. Is protective of younger children	3	2	1	0
64. Maintains positive relationships with younger children	3	2	1	0
65. Offers appropriate help to younger children	3	2	1	0
66. Enjoys assisting with plant care	3	2	1	0
67. Participates in outdoor activities	3	2	1	0
68. Enjoys a hobby that involves plants	3	2	1	0
69. Trusts a significant animal in his or her life	3	2	1	0
70. Enjoys assisting with animal care	3	2	1	0
71. Accepts responsibility for a pet's care	3	2	1	0
72. Has an animal that seeks his or her company	3	2	1	0
73. Outgrows clothes before wearing them out	3	2	1	0
74. Expresses remorse for behavior that is destructive to property	3	2	1	0
75. Helps to maintain family property	3	2	1	0

#### **PART 2—RADQ: A MEASURE OF ATTACHMENT DISORDER\***

**DIRECTIONS:** Read each of the statements below and circle the number that BEST describes how often your child shows that trait. If he/she usually shows it (90% or more of the time), then circle the 5. If he/she often shows it (75% of the time), circle the 4. If it is present about half of the time, circle the 3. If it is occasionally present (about 25% of the time), circle the 2. If it is rarely or never present (less than 10% of the time), circle the 1. Please make sure that you mark ONE and only ONE answer to each item, and that you mark an answer to EACH item. Do not mark between the numbers. Also, be sure to mark your answers in accordance with your child's behavior over the longest period possible, not just in the last 3 months. **Part 2 TAKES ABOUT 10 MINUTES TO COMPLETE**

\*Randolph, E. M. (1997). *Manual for the Randolph Attachment Disorder Questionnaire (RADQ)*. Evergreen, CO: The Attachment Center Press, by permission.

PLEASE GO ON TO THE NEXT PAGE

5 = usually (90+%) 4 = often (75%) 3 = sometimes (50%) 2 = occasionally (25%) 1 = rarely (>10%)

1. My child acts cute or charms others to get them to do what he/she wants.	5	4	3	2	1
2. My child has trouble making eye contact when adults want him/her to.	5	4	3	2	1
3. My child is overly friendly with strangers.	5	4	3	2	1
4. My child pushes me away or becomes stiff when I try to hug him/her, unless he/she wants something from me.	5	4	3	2	1
5. My child argues for long periods of time, often about ridiculous things.	5	4	3	2	1
6. My child has a tremendous need to have control over everything, becoming upset if things don't go his/her way.	5	4	3	2	1
7. My child acts amazingly innocent, or pretends that things aren't that bad when he/she is caught doing something wrong.	5	4	3	2	1
8. My child does very dangerous things, ignoring how he/she may be hurt while doing them.	5	4	3	2	1
9. My child deliberately breaks or ruins things.	5	4	3	2	1
10. My child doesn't seem to feel age-appropriate guilt for his/her actions.	5	4	3	2	1
11. My child teases, hurts, or is cruel to other children.	5	4	3	2	1
12. My child seems unable to stop him/herself from doing things on impulse.	5	4	3	2	1
13. My child steals, or shows up with things that belong to others with unusual or suspicious reasons for how he/she got them.	5	4	3	2	1
14. My child demands things, instead of asking for them.	5	4	3	2	1
15. My child doesn't seem to learn from his/her mistakes and misbehavior (no matter what the consequences, the child continues the behavior).	5	4	3	2	1
16. My child tries to get sympathy from others by telling them that I abuse and/or neglect him/her.	5	4	3	2	1
17. My child "shakes off" pain when he/she is hurt, refusing to let anyone comfort him/her.	5	4	3	2	1
18. My child likes to sneak things without permission, even though he/she could have had them if he/she had asked.	5	4	3	2	1
19. My child lies, often about obvious or ridiculous things, or when it would have been easier to tell the truth.	5	4	3	2	1
20. My child is very bossy with other children and adults.	5	4	3	2	1
21. My child hoards or sneaks food, or has other unusual eating habits (eats paper, raw flour, package mixes, baker's chocolate, etc.).	5	4	3	2	1
22. My child can't keep friends for more than a week.	5	4	3	2	1
23. My child throws temper tantrums (screaming fits) that last for hours.	5	4	3	2	1
24. My child chatters non-stop, asks repeated questions about things that make no sense, mutters, or has other oddities in his/her speech.	5	4	3	2	1
25. My child is accident-prone (gets hurt a lot), or complains a lot about every little ache and pain (needs constant band-aids).	5	4	3	2	1

PLEASE GO ON TO THE NEXT PAGE

5 = usually 4 = often 3 = sometimes 2 = occasionally 1 = rarely					
26. My child teases, hurts, or is cruel to animals.	5	4	3	2	1
27. My child doesn't do as well in school as he/she could with a little more effort.	5	4	3	2	1
28. My child has set fires, or is preoccupied with fire.	5	4	3	2	1
29. My child prefers to watch violent cartoons and/or TV shows or horror movies (regardless of whether or not you allow him/her to do this).	5	4	3	2	1
30. My child was abused/neglected during the first year of his/her life, or had several changes of his/her primary careprovider.	5	4	3	2	1

**PART 3: Foster Parent Sensory Learning Style Preference (This section takes about 5 minutes.)**

**Self Administered Inventory of Learning Strengths: SAILS\***

This next section is an assessment of adult sensory learning style which will be used to help structure training that is more responsive and more enjoyable for foster parents. This section will take you about 5 minutes to complete. Please read each statement and the two responses. Then circle the letter that best describes your learning preference. If there is a second adult care provider in your home, you may invite him or her to answer the same questions by placing an "X" next to the selections. Scoring information will be provided at the end for your interest.

\*Siegel, J., & Lester, S. E. (1994). The self administered inventory of learning strengths for college students (SAILS). Educational Resources Information Center. By permission.

1. When someone gives you road side directions:
  - A. You would rather write the directions out
  - C. You would rather draw a map
2. Which distracts you more when you are studying:
  - A. Loud noises
  - C. Flashing Lights
3. Which do you notice first about people you are meeting for the first time:
  - A. The sound of their voice
  - C. Their facial features
4. When you are interested in a new book would you rather:
  - A. Listen to the book recorded on audio cassette
  - C. Read the book silently
5. When learning a new skill would you rather:
  - B. Listen to a professor describe the steps
  - C. Watch a class demonstration illustrating the steps
6. Which do you prefer:
  - B. Participating in an athletic activity
  - C. Watching professionals play the sport
7. If you lost your keys would you more likely:
  - B. Retrace your steps
  - C. Visualize where you left them
8. Would you learn a lab experiment better is you
  - B. Figured the directions out yourself
  - C. Watch the teacher demonstrate the experiment

PLEASE GO ON TO THE NEXT PAGE

9. Would you learn social studies better if you:
  - B. Role played as historical characters
  - C. Were shown slides and films of historical events
10. Which way is easier for you to learn how to cook
  - B. Trying it out or experimenting
  - C. Following directions and illustrations
11. Which would you rather do:
  - A. Listen to a speaker
  - B. Give a presentation
12. Which would be easier for you to learn:
  - A. Words to a new song
  - B. Steps to a new dance
13. Which is the easier way for you to learn a new language
  - A. By hearing new words explained by a teacher
  - B. By encountering new words in real life situations
14. Which situation would enable you to study better
  - A. A room in absolute silence
  - B. A place where you have room to move around
15. Would you learn more in a class that:
  - A. Has you listening to interesting speakers
  - B. Has you participating in class activities

To self score the SAILS count the number of responses you have selected for A and B and C and write them here: # of As \_\_\_\_; # of Bs \_\_\_\_; # of Cs \_\_\_\_ = a total of 15. You may invite the other adult care provider to do this also by entering counts here: # of As \_\_\_\_; # of Bs \_\_\_\_; # of Cs \_\_\_\_ = a total of 15 (Check your counts by adding to see if  $A + B + C = 15$ ). Each number indicates the strength of the sensory learning style: the higher the number the more important the sensory learning style is to the individual. "A" responses are for Auditory learning; "B" responses are for Kinesthetic/Tactile (hands on) learning; and "C" responses represent Visual learning.

#### PART 4: Foster Parent Information & Suggestions

Please answer the first 10 questions (3 minutes) & then take as much time as you need to share your thoughts and wisdom.

1. What is your sex? [ ☐ ] Male [ ☐ ] Female
2. What is your race/ethnicity?: \_\_\_\_\_
3. What is your age? \_\_\_\_\_
4. What is your level of care? \_\_\_\_\_ Designated Level AND \_\_\_\_\_ Assessed Level
5. How long have you been a foster parent? \_\_\_\_\_ years/months
6. How many hours of training related to foster care have you participated in over the last 12 months? \_\_\_\_\_
7. How many placements do you currently have in your home? \_\_\_\_\_

PLEASE GO ON TO THE NEXT PAGE

8. What is your BCFFPA region? \_\_\_\_\_

9. What is your postal code? \_\_\_\_\_

10. Are you the parent with the majority of the care responsibilities? \_\_\_\_\_yes \_\_\_\_\_no

11. What suggestions do you have for improving the involvement of families when their children are in placement? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

12. If you could pick one training topic and have the training provided at no cost to you what would you choose?

\_\_\_\_\_

\_\_\_\_\_

13. What suggestions do you have to improve the services provided to foster parents and children in care:

By MCF? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

By BCFFPA? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

14. Any other comments you wish to add:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

THANK YOU FOR YOUR PATIENCE AND HELP.

PLEASE RETURN THIS QUESTIONNAIRE IN THE POSTAGE-PAID, SELF-ADDRESSED ENVELOPE TO:

A. Myrth Ogilvie  
c/o BCFFPA  
206-3680 E Hastings Street  
Vancouver, BC V5K 2A9  
(503) 725-4160

THANK YOU!

**Appendix B****Letters of Understanding with BCFFPA**





## *British Columbia*

Federation of Foster Parent Associations

September 28, 1998

Myrth Ogilvie  
9422 South West 62 Drive  
Portland Oregon USA  
97219 - 4917

Dear Ms. Ogilvie:

Your proposal to conduct a survey of BC Foster Parents was presented to our Board of Directors on Saturday, September 26. I am happy to report that they agreed to support your efforts and encourage other BC Foster Parents to do so as well. We look forward to working with you on this exciting project.

Yours truly,

  
Kay Dahl, President

Provincial Office  
206 - 3680 E Hastings St  
Vancouver BC V5K 2A9  
Tel.: (604) 660-7696  
Fax.: (604) 775-1183  
Foster Line: 1-800-663-9999

NOV-23-1998 09:05 FROM B C FOSTER PARENTS

TO

015837254180 P.01



## *British Columbia* Federation of Foster Parent Associations

November 2, 1998

Myrth Ogilvie  
9422 S.W. 62 Drive  
Portland, Or  
97219-4917

Facsimile # (503) 725-4180

RE: Foster Home Survey

Dear Myrth;

This letter is to confirm that we, the B.C. Federation of Foster Parent Association, agree that the information gathered through the survey will belong to you.

I also wish to confirm that the above mentioned information will be shared with the B.C. Federation of Foster Parent Association in return for our collaboration on this venture.

I hope this agreement is satisfactory.

Yours truly;

[Redacted Signature]  
Kay Dahl  
President

Provincial Office  
206 - 3680 E Hastings St  
Vancouver BC V5K 2A9  
Tel: (604) 660-7696  
Fax: (604) 775-1183  
Foster Line: 1-800-663-9999

**Appendix C****Scale Copyright Permissions**

**PRO-ED Publishing Company**

8700 Shoal Creek  
Austin, TX 78757-6897  
(512) 451-3246  
(512) 451-8542 (fax)

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**THE  
ATTACHMENT  
CENTER**  
AT EVERGREEN

27618 FIREWEED DRIVE

POST OFFICE BOX 2764

EVERGREEN, COLORADO 80437-2764

(303) 674-1910 FAX (303) 670-3983

September 17, 1998

Myrth Ogilvie  
9422 Southwest 62 Drive  
Portland, OR 97219-4917

Dear Myrth:

This is in response to your request that we waive the copyright requirements on the Randolph Attachment Disorder Questionnaire for your research. We have discussed this request and agree to waive the copyright requirements to this instrument for the purpose of your current research project. This consent would be terminated at the point at which you complete this study. If you wish to do further research with the RADQ, you would again need to request separate permission. I am sure that you will appropriately credit Dr. Liz Randolph and The Attachment Center for the use of this instrument. We would greatly appreciate receiving a copy of the results of your research when it is completed.

Please keep us informed as this study progresses. We are very interested in the outcome.

Sincerely,

Paula Pickle, LCSW  
Executive Director

Liz Randolph, Ph.D.  
Research Coordinator

